10-06-P

#### DEPARTMENT OF TRANSPORTATION

**Federal Railroad Administration** 

**49 CFR Part 236** 

[Docket No. FRA-2019-0075]

**RIN 2130-AC75** 

**Positive Train Control Systems** 

**AGENCY:** Federal Railroad Administration (FRA), Department of Transportation (DOT).

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** FRA is proposing to revise its regulations governing changes to positive train control (PTC) systems and reporting on PTC system functioning. First, recognizing that the railroad industry intends to enhance further FRA-certified PTC systems to continue improving rail safety and PTC technology's reliability and operability, FRA proposes to modify the process by which a host railroad must submit a request for amendment (RFA) to FRA before making certain changes to its PTC Safety Plan (PTCSP) and FRA-certified PTC system. Second, to enable more effective FRA oversight, FRA proposes to: expand an existing reporting requirement by increasing the frequency from annual to biannual; broaden the reporting requirement to encompass positive performance-related information, not just failure-related information; and require host railroads to utilize a new, standardized Biannual Report of PTC System Performance (Form FRA F 6180.152). Overall, the proposed amendments would benefit the railroad industry, the public, and FRA, by reducing unnecessary costs, facilitating innovation, and improving FRA's ability to oversee PTC system performance and reliability, while not negatively affecting rail safety.

**DATES:** Written comments must be received by [INSERT DATE 60 DAYS AFTER

DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]. FRA believes a 60-day comment period is appropriate to allow the public to comment on this proposed rule. FRA will consider comments received after that date to the extent practicable.

**ADDRESSES:** *Comments*: Comments related to Docket No. FRA-2019-0075 may be submitted by going to *http://www.regulations.gov* and following the online instructions for submitting comments.

Instructions: All submissions must include the agency name, docket number (FRA-2019-0075), and Regulation Identifier Number (RIN) for this rulemaking (2130-AC75). All comments received will be posted without change to <a href="https://www.regulations.gov">https://www.regulations.gov</a>; this includes any personal information. Please see the Privacy Act heading in the **SUPPLEMENTARY INFORMATION** section of this document for Privacy Act information related to any submitted comments or materials.

Docket: For access to the docket to read background documents or comments received, go to https://www.regulations.gov and follow the online instructions for accessing the docket.

**FOR FURTHER INFORMATION CONTACT:** Gabe Neal, Acting Staff Director, Signal, Train Control, and Crossings Division, telephone: 816-516-7168, e-mail: *Gabe.Neal@dot.gov*; or Stephanie Anderson, Attorney Adviser, telephone: 202-493-0445, e-mail: *Stephanie.Anderson@dot.gov*.

#### **SUPPLEMENTARY INFORMATION:**

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### I. Executive Summary

Section 20157 of title 49 of the United States Code (U.S.C.) mandates each Class I railroad, and each entity providing regularly scheduled intercity or commuter rail passenger transportation, to implement an FRA-certified PTC system fully on: (1) its main lines over which poison- or toxic-by-inhalation hazardous materials are transported, if the line carries five million or more gross tons of any annual traffic; (2) its main lines over which intercity or commuter rail passenger transportation is regularly provided; and (3) any other tracks the Secretary of Transportation (Secretary) prescribes by regulation or order. By law, PTC systems must be designed to prevent certain accidents or

<sup>&</sup>lt;sup>1</sup> See Rail Safety Improvement Act of 2008, Pub. L. No. 110-432, 104(a), 122 Stat. 4848 (Oct. 16, 2008), as amended by the Positive Train Control Enforcement and Implementation Act of 2015, Pub. L. No. 114-73, 129 Stat. 568, 576–82 (Oct. 29, 2015), and the Fixing America's Surface Transportation Act, Pub. L. No. 114-94, section 11315(d), 129 Stat. 1312, 1675 (Dec. 4, 2015), codified as amended at 49 U.S.C. 20157. See also Title 49 Code of Federal Regulations (CFR) part 236, subpart I.

incidents, including train-to-train collisions, over-speed derailments, incursions into established work zones, and movements of trains through switches left in the wrong position.<sup>2</sup>

In general, the statutory mandate requires that by December 31, 2020, FRA-certified and interoperable PTC systems must govern operations on all PTC-mandated main lines, currently encompassing nearly 58,000 route miles nationwide.<sup>3</sup> *See* 49 U.S.C. 20157(a); 49 CFR 236.1005(b)(6)–(7). Currently, 35 host railroads<sup>4</sup>—including 7 Class I railroads, 23 intercity passenger railroads or commuter railroads, and 5 Class II or III, short line, or terminal railroads—are directly subject to the statutory mandate to implement an FRA-certified and interoperable PTC system on their PTC-mandated main lines by December 31, 2020. For purposes of FRA's PTC regulations, a host railroad is "a railroad that has effective operating control over a segment of track," and a tenant railroad is "a railroad, other than a host railroad, operating on track upon which a PTC system is required." *See* 49 CFR 236.1003(b).

For context, under the statutory mandate, "interoperability" is the general requirement that the controlling locomotives and cab cars of any host railroad and tenant railroad operating on the same main line must communicate with and respond to the PTC system, including uninterrupted movements over property boundaries, except as otherwise permitted by law.<sup>5</sup> As of September 2020, according to host railroads' PTC Implementation Plans (PTCIP), approximately 93 distinct PTC-required tenant railroads operate on main lines subject to the statutory mandate. Because many railroads operate

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<sup>&</sup>lt;sup>2</sup> See, e.g., 49 U.S.C. 20157(g)(1), (i)(5); 49 CFR 236.1005 (setting forth the technical specifications).

<sup>&</sup>lt;sup>3</sup> Except a railroad's controlling locomotives or cab cars that are subject to either a temporary or permanent exception under 49 U.S.C. 20157(j)–(k) or 49 CFR 236.1006(b), *Equipping locomotives operating in PTC territory*.

<sup>&</sup>lt;sup>4</sup> The infographics on FRA's PTC website (https://railroads.dot.gov/train-control/ptc/positive-train-control-ptc) identify 41 railroads currently subject to the statutory mandate, but six of those 41 railroads are tenant-only commuter railroads, not host railroads. As this proposed rule primarily focuses on requirements specific to host railroads, FRA will reference the current number of PTC-mandated host railroads (35) and any host railroads that may become subject to the statutory mandate in the future.

<sup>5</sup> See 49 U.S.C. 20157(a)(2)(A)(i)(I), (a)(2)(D), (i)(3), (j)–(k); 49 CFR 236.1003, 236.1006, 236.1011(a)(3).

on multiple host railroads' PTC-mandated main lines, there are approximately 219 host-tenant railroad relationships in which PTC system interoperability must be achieved by December 31, 2020.

From 2018 through 2020, FRA held three PTC Symposia and Collaboration Sessions per year to underscore the importance of the mandate, ensure the industry understands the statutory and regulatory requirements, and facilitate timely compliance. In addition, the six Collaboration Sessions during 2019 and 2020 provided the opportunity for FRA to convene the industry's technical experts to share best practices and jointly resolve common technical problems.

Through these meetings and regular coordination with all railroads implementing PTC systems, PTC system vendors and suppliers, and other stakeholders, FRA began proactively identifying aspects of FRA's existing PTC regulations that could impede either PTC-related innovation or FRA's oversight, following the December 31, 2020, statutory deadline for full PTC system implementation. Specifically, FRA identified two existing regulatory provisions, 49 CFR 236.1021 and 236.1029(h), which, if not revised, could impede the industry's ability to advance PTC technology efficiently and FRA's ability to oversee the performance and reliability of PTC systems effectively.

First, understanding that the railroad industry intends to update FRA-certified PTC systems continually to ensure safe operations (*e.g.*, through ongoing, necessary maintenance) and to enhance further the technology (*e.g.*, by adding new functionality or improving a PTC system's reliability and operability), FRA is proposing to modify the process under 49 CFR 236.1021 for RFAs to PTCSPs for FRA-certified systems. The improved process will enable the industry to deploy upgrades and technological enhancements more efficiently, and ensure FRA's review of changes or modifications to FRA-certified systems is more predictable and consistent going forward. The proposed process will apply only to PTC systems FRA has already certified under 49 U.S.C.

20157(h). The statutory mandate generally requires FRA to certify that a host railroad's PTC system complies with 49 CFR part 236, subpart I, before it operates in revenue service, and this proposed rule will not amend the existing certification process FRA developed to comply with this mandate (*i.e.*, this proposed rule would not amend 49 CFR 236.1009 or 236.1015 regarding PTCSPs and the PTC System Certification process). To be clear, FRA's proposal to modify the process that currently requires a host railroad to submit, and obtain FRA's approval of, an RFA to a PTCSP under 49 CFR 236.1021 will not apply to any existing or new PTC system, unless and until FRA has certified that PTC system under 49 U.S.C. 20157(h).

Instead of the existing RFA approval process with an indefinite decision timeline, FRA proposes to require railroads to comply with a streamlined RFA process, which includes providing certain documentation, analysis, and safety assurances. This proposed rule would establish a 45-day deadline for FRA to review and approve or deny railroads' RFAs to their FRA-approved PTCSPs or FRA-certified PTC systems. In addition, FRA proposes to permit host railroads utilizing the same type of PTC system to submit joint RFAs to their PTCSPs and PTC Development Plans (PTCDP)—an option which, if exercised, would efficiently leverage industry's resources, help ensure coordination among railroads operating the same types of PTC systems, and reduce the number of similar or identical RFA filings host railroads submit to FRA for review and approval.

Second, FRA proposes to expand an existing reporting requirement—49 CFR 236.1029(h), *Annual report of system failures*—by increasing the frequency of the reporting requirement from annual to biannual; broadening the reporting requirement to encompass positive performance-related information, not just failure-related information; and requiring host railroads to utilize a new, standardized Biannual Report of PTC

System Performance (Form FRA F 6180.152)<sup>6</sup> to enable more effective FRA oversight. In addition, FRA proposes to amend § 236.1029(h) by updating the provision to use certain statutory terminology for consistency; clarifying the ambiguous filing obligation by specifying that only host railroads directly submit these reports to FRA; and explicitly requiring tenant railroads to provide the necessary data to their applicable host railroads by a specific date before the biannual filing deadlines.

FRA analyzed the economic impact of this proposed rule over a ten-year period and estimated its costs and cost savings, which are shown in the table below. The cost savings associated with FRA's proposal to amend § 236.1021—*i.e.*, to simplify the process for all RFAs to PTCSPs and authorize host railroads to file joint RFAs to PTCSPs and PTCDPs—would outweigh the costs associated with FRA's proposal to expand the reporting requirement under paragraph (h) of § 236.1029.

**Net Cost Savings in Millions (2019 Dollars)** 

	Present Value 7%	Present Value 3%	Annualized 7%	Annualized 3%
Industry Costs	\$324,158	\$379,231	\$46,153	\$44,457
Industry Cost				
Savings	\$6,116,671	\$7,202,273	\$870,876	\$844,326
Government Cost				
Savings	\$17,978,594	\$21,188,896	\$2,559,747	\$2,483,985
<b>Net Cost Savings</b>	\$23,771,107	\$28,011,938	\$3,384,471	\$3,283,854

## II. Background and Summary of the Main Proposals in the NPRM

#### A. Legal Authority to Prescribe PTC Regulations

Section 104(a) of the Rail Safety Improvement Act of 2008 required the Secretary to prescribe PTC regulations necessary to implement the statutory mandate, including regulations specifying the essential technical functionalities of PTC systems and the means by which FRA will certify PTC systems.<sup>7</sup> The Secretary delegated to the Federal Railroad Administrator the authority to carry out the functions and exercise the authority

<sup>&</sup>lt;sup>6</sup> The proposed Biannual Report of PTC System Performance (Form FRA F 6180.152) will be placed in the docket (Docket No. FRA-2019-0075) for review when this NPRM is published.

<sup>&</sup>lt;sup>7</sup> Pub. L. No. 110-432, 122 Stat. 4848 (Oct. 16, 2008), codified as amended at 49 U.S.C. 20157(g).

vested in the Secretary by the Rail Safety Improvement Act of 2008. 49 CFR 1.89(b).

In accordance with its authority under 49 U.S.C. 20157(g) and 49 CFR 1.89(b), FRA issued its first final PTC rule on January 15, 2010, which is set forth, as amended, under 49 CFR part 236, subpart I, *Positive Train Control Systems*. FRA's PTC regulations under 49 CFR part 236, subpart I, prescribe "minimum, performance-based safety standards for PTC systems . . . including requirements to ensure that the development, functionality, architecture, installation, implementation, inspection, testing, operation, maintenance, repair, and modification of those PTC systems will achieve and maintain an acceptable level of safety." 49 CFR 236.1001(a). FRA subsequently amended its PTC regulations via final rules issued in 2010, 2012, 2014, and 2016.9

Most recently, on February 29, 2016, as required, FRA amended its PTC regulations to revise the regulations' date-specific deadlines for conformity with the Positive Train Control Enforcement and Implementation Act of 2015 (PTCEI Act). PTCEI Act). PTCEI Act extended the original statutory deadline for full implementation of PTC systems from December 31, 2015, to at least December 31, 2018. In addition, the PTCEI Act permits railroads to utilize an "alternative schedule and sequence" with a full implementation deadline beyond December 31, 2018, but not later than December 31, 2020. Further, the legislation required FRA to approve a railroad's alternative schedule and sequence if the railroad demonstrated it met the six statutory criteria necessary to qualify for an alternative schedule and sequence.

<sup>8</sup> 75 FR 2598 (Jan. 15, 2010).

<sup>&</sup>lt;sup>9</sup> See 75 FR 59108 (Sept. 27, 2010); 77 FR 28285 (May 14, 2012); 79 FR 49693 (Aug. 22, 2014); 81 FR 10126 (Feb. 29, 2016).

<sup>&</sup>lt;sup>10</sup> Pub. L. No. 114-73, 129 Stat. 568, 576–82 (Oct. 29, 2015), as amended by the Fixing America's Surface Transportation Act, Pub. L. No. 114-94, section 11315(d), 129 Stat. 1312, 1675 (Dec. 4, 2015). *See also* 81 FR 10126 (Feb. 29, 2016), amending 49 CFR part 236, subpart I.

<sup>&</sup>lt;sup>11</sup> 49 U.S.C. 20157(a). Please note that the PTCEI Act also required FRA to extend each deadline under 49 CFR 236.1006(b)(4)(iii)(B) by three years, related to certain Class II and Class III railroads that operate in PTC territory. *See* 49 U.S.C. 20157(k); 81 FR 10126 (Feb. 29, 2016).

<sup>&</sup>lt;sup>12</sup> 49 U.S.C. 20157(a)(3)(C) (using the term "shall"). As background, four PTC-mandated host railroads reported that they fully implemented an FRA-certified and interoperable PTC system on all their required main lines by December 31, 2018. Every other host railroad subject to the statutory mandate in 2018

In this proposed rule, FRA proposes to revise three sections, 49 CFR 236.1003, 236.1021, and 236.1029, of FRA's existing PTC regulations pursuant to its specific authority under 49 CFR 1.89 and 49 U.S.C. 20157(g), and its general authority under 49 U.S.C. 20103 to prescribe regulations and issue orders for every area of railroad safety.

#### B. Public Participation Prior to the Issuance of the NPRM

As referenced above, FRA regularly engages with host railroads, tenant railroads, and PTC system vendors and suppliers, as part of FRA's oversight of railroads' implementation of PTC systems on the mandated main lines under 49 U.S.C. 20157 and the other lines where railroads are voluntarily implementing PTC technology. The purpose of this section is to summarize FRA's pertinent meetings prior to the issuance of this NPRM, pursuant to 49 CFR 5.19.

During two of FRA's PTC Collaboration Sessions in 2019 and 2020, FRA generally discussed its intention to propose to modify the RFA process under § 236.1021, specifically as it relates to FRA-approved PTCSPs and FRA-certified PTC systems. One of these two Collaboration Sessions was held on February 6, 2019 at DOT's Headquarters in Washington, D.C., and the other was hosted via teleconference on June 10, 2020.

Specifically, during the Collaboration Session on February 6, 2019, FRA noted it was considering simplifying the formal process for railroads to modify their PTCSPs and PTC systems under § 236.1021, after FRA certifies a railroad's PTC system as required under the statutory mandate. FRA raised questions for the industry to consider, including how host railroads plan to maintain their PTCSPs, as required, acknowledging that PTC technology will continue evolving given, for example, ongoing software modifications

formally requested an alternative schedule and sequence under 49 U.S.C. 20157(a)(3). By March 5, 2019, FRA approved all applicable requests for an alternative schedule and sequence, as each railroad sufficiently demonstrated it, at a minimum, met the six statutory criteria necessary to qualify for an alternative schedule and sequence, under the statutory mandate.

necessary for safe operations and voluntary enhancements to improve further the reliability or operability of PTC systems.<sup>13</sup> FRA understands that, over time, new software releases may become necessary to: fix certain bugs or defects; eliminate newly discovered hazards; or add new functionality to continue to improve rail safety, or the reliability and operability of the technology. In addition, FRA acknowledged that certain changes to PTC systems will likely impact multiple PTCSPs, as the industry is currently implementing five main types of PTC systems.<sup>14</sup> During the Collaboration Session on June 10, 2020, FRA discussed its intention to issue this NPRM and described the high-level objectives of this proposed rule.

In addition, on October 2, 2019, during FRA's PTC Collaboration Session hosted at the National Housing Center in Washington, D.C., one Class I railroad suggested that FRA should consider amending the permanent reporting requirement under 49 CFR 236.1029(h) to make it consistent with the temporary statutory reporting requirement under 49 U.S.C. 20157(j)(4), because existing paragraph (h) of § 236.1029 uses different terminology to describe PTC-related failures. In addition, during this meeting, one commuter railroad requested that FRA create a standardized form for railroads to utilize under § 236.1029(h). FRA made no commitments at any of its PTC Collaboration Sessions, but FRA internally considered this industry input as it developed this proposed rule. Please note that all presentations from FRA's PTC Symposia and Collaboration Sessions are available in FRA's eLibrary, including direct links on FRA's PTC website at <a href="https://railroads.dot.gov/train-control/ptc/positive-train-control-ptc">https://railroads.dot.gov/train-control/ptc/positive-train-control-ptc</a>.

<sup>&</sup>lt;sup>13</sup> See, e.g., 49 CFR 236.1009(d) (requiring a PTC system to be implemented in accordance with the host railroad's PTCSP).

<sup>&</sup>lt;sup>14</sup> Currently, railroads are primarily implementing the following PTC systems in the United States: (1) the Interoperable Electronic Train Management System (I-ETMS), which Class I railroads and many commuter railroads are implementing; (2) the Advanced Civil Speed Enforcement System II (ACSES II) or the Advanced Speed Enforcement System II (ASES II), which most railroads operating on the Northeast Corridor (NEC) are implementing; (3) Enhanced Automatic Train Control (E-ATC), which five host railroads are implementing; (4) the Incremental Train Control System, which the National Railroad Passenger Corporation (Amtrak) is implementing in parts of Michigan; and (5) the Communication Based Train Control (CBTC) system, which one commuter railroad has fully implemented on its PTC-mandated main lines

As information, representatives from all 35 host railroads currently subject to the statutory mandate attended at least two of the three above PTC Collaboration Sessions, and 89 percent of the PTC-mandated host railroads attended *all* three of the PTC Collaboration Sessions where FRA discussed either 49 CFR 236.1021 or 236.1029(h). Specifically, 97 percent of the 35 applicable host railroads attended the PTC Collaboration Sessions on February 6, 2019 and October 2, 2019, and 94 percent attended the session on June 10, 2020. Furthermore, representatives from the American Public Transportation Association (APTA), the American Short Line and Regional Railroad Association (ASLRRA), and the Association of American Railroads (AAR) participated in all three of these pertinent PTC Collaboration Sessions. In addition, a representative from the Commuter Rail Coalition attended the PTC Collaboration Sessions on October 2, 2019 and June 10, 2020.

Furthermore, on the following dates, FRA met with AAR and several of its member railroads to discuss various PTC-related issues and topics, including FRA's previously stated intention to propose modifications to the RFA process under § 236.1021, specifically as it applies to FRA-certified PTC systems: September 6, 2019; March 3, 2020; April 2, 2020; June 11, 2020; June 25, 2020; July 9, 2020; and August 27, 2020. During the meetings on September 6, 2019 and July 9, 2020, representatives from AAR and its member railroads indicated that FRA should consider amending other provisions under FRA's PTC regulations, in addition to § 236.1021, but those provisions are not the focus of this proposed rule. As noted above, at this time, FRA considers it necessary to amend §§ 236.1021 and 236.1029(h) because those provisions, if not revised, could impede the industry's ability to enhance PTC technology and FRA's ability to oversee the performance and reliability of PTC systems effectively. If FRA

<sup>&</sup>lt;sup>15</sup> In addition to the 35 host railroads subject to the statutory mandate, representatives from multiple other railroads attended these PTC Collaboration Sessions, including eight tenant-only passenger railroads that operate on PTC-mandated main lines.

finds that any other amendments to 49 CFR part 236, subpart I, are necessary or justified in the future, FRA will address them in a separate NPRM.

Representatives from the following Class I railroads and passenger railroads, listed alphabetically, attended the AAR meetings referenced immediately above: Amtrak, BNSF Railway, Canadian National Railway, Canadian Pacific Railway, CSX Transportation, Inc., Kansas City Southern Railway, Norfolk Southern Railway, the Northeast Illinois Regional Commuter Railroad Corporation (Metra), the Southern California Regional Rail Authority (Metrolink), and Union Pacific Railroad. The railroads' main comments during these meetings involved their concerns that the existing process under § 236.1021 would stifle innovation and create significant delays in deploying improvements to PTC technology. In general, they supported revising the existing RFA process under § 236.1021 to help enable technological advancements and ensure FRA is not an impediment to the industry's ability to enhance PTC technology. FRA's statements during these meetings were consistent with FRA's statements to all PTC-mandated host railroads at multiple PTC Collaboration Sessions. The proposals in this NPRM are based on FRA's own review and analysis and, in part, on industry's feedback during the meetings in 2019 and 2020, specified above. FRA seeks comments on all proposals made in this NPRM.

C. Proposal to Establish a New Process for Modifying FRA-Certified PTC Systems and the Associated PTCSPs

FRA's PTC regulations have always acknowledged that after "implementation of a train control system, the subject railroad may have legitimate reasons for making changes in the system design," among other changes, including to a PTC system's functionality. Accordingly, under 49 CFR 236.1015(d)(7), FRA requires host railroads' PTCSPs to include, among other relevant information, a "complete description of the

<sup>&</sup>lt;sup>16</sup> See 75 FR 2598, 2660 (Jan. 15, 2010).

specific procedures and test equipment necessary to ensure the safe and proper . . . operation, maintenance, repair, inspection, testing, and modification of the PTC system on the railroad."

Recognizing that PTC technology must be actively maintained throughout its lifecycle and beyond, FRA's regulations also require each railroad to "catalog and maintain all documents as specified in the PTCDP and PTCSP for . . . maintenance, repair, modification, inspection, and testing of the PTC system." Specifically, 49 CFR 236.1039(a) requires railroads to retain these documents in a PTC Operations and Maintenance Manual, which must be "readily available to persons required to perform such tasks and for inspection by FRA and FRA-certified state inspectors." For example, a railroad's Operations and Maintenance Manual must document all "[h]ardware, software, and firmware revisions . . . according to the railroad's configuration management control plan and any additional configuration/revision control measures specified in the [host railroad's] PTCSP." 18

FRA is aware that host railroads will need to deploy new PTC software releases, among other changes, to ensure their PTC systems are performing properly—for example, to fix certain bugs or defects or eliminate newly discovered hazards. In addition to incremental changes to PTC systems that are necessary for the continued safe and proper functioning of the technology, FRA understands that several railroads and PTC system vendors and suppliers have chosen to design and develop their PTC systems to perform safety-related functions in addition to the minimum, performance-based functions specified under the statutory mandate and FRA's regulations.

Currently, FRA's PTC regulations, in relevant part, prohibit a railroad from

<sup>&</sup>lt;sup>17</sup> 49 CFR 236.1039(a).

<sup>&</sup>lt;sup>18</sup> 49 CFR 236.1039(c). *See also* FEDERAL RAILROAD ADMINISTRATION, Revised PTC Guidance Regarding Interoperability Testing, Operations and Maintenance Manuals, and Certification Responsibilities (July 24, 2018), *available at* 

making certain changes to its FRA-approved PTCSP or FRA-certified PTC system unless the railroad files an RFA to its PTCSP and obtains approval from FRA's Associate Administrator for Railroad Safety. 49 CFR 236.1021. This proposed rule does not envision revising the types of changes that currently require a host railroad to file an RFA under § 236.1021(h)(1)–(4) (often referred to as "material modifications") or the exceptions currently set forth under § 236.1021(i)–(k).

For example, FRA's regulations require a railroad to submit, for FRA review and approval, an RFA to the railroad's PTCSP for any proposed modification of a safety-critical element of a PTC system or any proposed modification of a PTC system that affects the safety-critical functionality of any other PTC system with which it interoperates. *See* 49 CFR 236.1021(h)(3)–(4). Though FRA's existing regulations specify that FRA will, to the extent practicable, review and issue a decision regarding a host railroad's initially filed PTCSP within 180 days of the date it was filed, FRA's regulations do not currently specify an estimated timeline for reviewing and approving or denying railroads' subsequent RFAs to their PTCSPs.<sup>19</sup> In practice, as of September 2020, it has taken FRA 127 days, on average, to review and approve recent RFAs to PTCSPs for FRA-certified PTC systems, which is, in part, due to the complex content requirements currently under paragraphs (d)(1) to (7) of § 236.1021.

Instead of the existing RFA approval process with an indefinite decision timeline, FRA proposes to: (1) require railroads to comply with a streamlined RFA process, including providing certain documentation, analysis, and safety assurances; and (2) establish a 45-day deadline for FRA's review and issuance of a decision. In new proposed paragraph (m) of § 236.1021, FRA outlines the proposed content requirements for RFAs to PTCSPs for FRA-certified PTC systems—focusing on the core information and analysis FRA would need to review to ensure the PTC system, including any

<sup>&</sup>lt;sup>19</sup> See 49 CFR 236.1009(i)(2).

proposed changes, will provide an equivalent or greater level of safety than the existing PTC system. The improved process would enable the industry to implement technological enhancements more efficiently, and the clear timeline would help ensure a more predictable and transparent FRA review process going forward.

In addition, this proposed rule envisions permitting host railroads utilizing the same type of PTC system to submit joint RFAs to their PTCSPs and PTCDPs—an option which, if exercised, will efficiently leverage industry's resources, help ensure coordination among railroads operating the same types of PTC systems, and reduce the number of similar or identical RFA filings host railroads submit to FRA for review. As noted above, currently, the 35 PTC-mandated host railroads are implementing five types of PTC systems, though FRA acknowledges that, in several cases, railroads are implementing PTC systems of the same type in different manners (*e.g.*, variances in design, functionality, and operation), requiring railroads to conduct additional testing and gap analyses to achieve and sustain interoperability, including configuration management.

Appreciating that changes to safety-critical elements, including software or system architecture, of a certain PTC system will likely impact multiple, if not most, railroads implementing that same type of PTC system, FRA's proposed rule outlines a path for such host railroads to submit joint RFAs to their PTCSPs, with specific instructions under new proposed paragraphs (l) and (m) of § 236.1021. The proposed rule would specify that while most types of information required under proposed paragraph (m) of § 236.1021 may be submitted jointly in the RFA, the joint RFA would need to include certain written confirmations or statements<sup>20</sup> from each host railroad that

<sup>&</sup>lt;sup>20</sup> For example, confirmation that: (1) each host railroad notified any applicable tenant railroads of the proposed changes, any associated effect on the tenant railroads' operations, and any actions the tenant railroads must take in accordance with the configuration control measures set forth in the host railroad's PTCSP; and (2) the PTC system, if modified, would meet all technical requirements under 49 CFR part 236, subpart I, provide an equivalent or greater level of safety than the existing PTC system, and not adversely impact interoperability with any tenant railroads.

is a signatory to the joint RFA. In addition, FRA's proposed rule specifies that only host railroads with the same PTC System Certification classification under paragraph (e) of § 236.1015 may jointly file an RFA to their PTCSPs.

Though this proposed rule would generally authorize host railroads utilizing the same type of PTC system to file RFAs to their PTCSPs jointly, FRA expects this aspect of the proposal, in the short term, primarily to impact host railroads implementing I-ETMS and E-ATC because each respective I-ETMS and E-ATC system is similar to others of the same type, with a baseline functionality. Conversely, there is not a uniform standard or specification currently underlying the ACSES II or ASES II PTC systems that host railroads are implementing on the NEC. In addition, there is an array of ACSES II suppliers, including for the onboard, wayside, and communications subsystems. In the future, however, as the ACSES II railroads finish establishing the Interoperable Change Management Plan they are currently developing, it is possible that at least some of the host railroads utilizing ACSES II or ASES II will elect to submit joint RFAs to their respective PTCSPs for certain system-wide changes, consistent with the option under proposed paragraphs (I) and (m) of § 236.1021.

FRA recognizes that modifying and simplifying the process for host railroads to submit RFAs to PTCSPs for FRA-certified PTC systems is necessary to facilitate required maintenance and upgrades to PTC technology and encourage railroads to enhance their PTC systems to continue to improve rail safety.

D. Proposal to Expand the Performance-related Reporting Requirements

Following the applicable deadline for full PTC system implementation under 49 U.S.C. 20157, FRA's regulations currently require a railroad to submit an annual report by April 16<sup>th</sup> each year regarding the number of PTC system failures, "including but not limited to locomotive, wayside, communications, and back office system failures," that occurred during the previous calendar year. *See* 49 CFR 236.1029(h). The first failure-

related annual reports pursuant to § 236.1029(h) were due on April 16, 2019 from the four host railroads whose statutory deadline was December 31, 2018 for the full implementation of a PTC system on their required main lines. FRA has found that all annual reports railroads submitted to date have been brief (*e.g.*, as short as half of a page) and included minimal information, but still technically satisfied the existing content requirements under § 236.1029(h).

Because the minimal information currently required under § 236.1029(h) does not permit FRA to monitor adequately the rate at which PTC system failures occur or evaluate improvements over time, FRA is proposing to revise § 236.1029(h) to enable FRA to perform its oversight functions effectively. Specifically, FRA proposes to increase the frequency of this reporting requirement from annual to biannual, with proposed filing deadlines on July 31 (covering the period from January 1 to June 30) and January 31 (covering the period from July 1 to December 31 of the prior calendar year), instead of an annual filing deadline on April 16, as § 236.1029(h) currently provides. Under the existing framework, pursuant to § 236.1029(h), FRA must wait until April 16<sup>th</sup> each year to receive railroads' failure-related data from the prior calendar year—data which is quite outdated by the time it is filed. FRA's proposed biannual frequency would enable FRA to monitor closely trends in PTC system reliability with more up-to-date data, covering two intervals per year. In addition, FRA notes that the proposed biannual frequency is reasonable, given that railroads must currently submit certain failure-related data quarterly or monthly, pursuant to a temporary reporting requirement under the statutory mandate, as discussed below.

In addition, to ensure the data railroads submit under § 236.1029(h) are uniform, comparable, and objective, FRA proposes to revise this existing reporting requirement by specifying the exact types of statistics and information the reports must include; broadening the reporting requirement to encompass positive performance-related

information, not just failure-related information; and requiring host railroads to utilize a new, standardized Biannual Report of PTC System Performance (Form FRA F 6180.152) to enable more effective FRA oversight.

Furthermore, FRA proposes to amend § 236.1029(h) to make it consistent with the temporary reporting requirement under 49 U.S.C. 20157(j)(4) because the existing statutory and regulatory provisions use different terminology to describe PTC-related failures. As background, the PTCEI Act established a reporting requirement that applies only temporarily—from October 29, 2015, to approximately December 31, 2021<sup>21</sup>—and only to PTC systems that FRA has certified and have been implemented, including on a subset of a railroad's main lines.<sup>22</sup> 49 U.S.C. 20157(j)(4). As a default, the reporting requirement under 49 U.S.C. 20157(j)(4) specifies that when an FRA-certified PTC system "fails to initialize, cuts out, or malfunctions," the railroad must submit a notification to the appropriate FRA regional office within 7 days of the failure, and the notification must include a description of the safety measures the railroad has in place.

However, as the PTCEI Act authorized, FRA established an alternative reporting deadline (instead of within 7 days of each occurrence) and an alternative reporting location (instead of submitting the notifications to the appropriate FRA region).<sup>23</sup> Specifically, on December 30, 2019 and March 16, 2020, FRA published a proposed framework for host railroads operating FRA-certified PTC systems to submit a Statutory Notification of PTC System Failures (Form FRA F 6180.177) to fulfill this temporary reporting requirement under the PTCEI Act.<sup>24</sup> On June 5, 2020, following the required

<sup>&</sup>lt;sup>21</sup> By law, the temporary reporting requirement under 49 U.S.C. 20157(j)(4) sunsets on approximately December 31, 2021—or more specifically, one year after the last Class I railroad obtains PTC System Certification from FRA and finishes fully implementing an FRA-certified and interoperable PTC system on all its required main lines. *See* 49 U.S.C. 20157(j).

<sup>&</sup>lt;sup>22</sup> For example, acknowledging the incremental nature of implementation, the PTCEI Act required Class I railroads and Amtrak to demonstrate they "implemented a [PTC] system or initiated revenue service demonstration on the *majority* of [PTC-mandated] territories . . . or route miles that are owned or controlled by such carrier[s]," to qualify for an alternative schedule and sequence by law. 49 U.S.C. 20157(a)(3)(B)(vi) (emphasis added).

<sup>&</sup>lt;sup>23</sup> See 49 U.S.C. 20157(j)(4); 49 CFR 1.89.

<sup>&</sup>lt;sup>24</sup> See 84 FR 72121, 72123–26 (Dec. 30, 2019); 85 FR 15022, 15025–27 (Mar. 16, 2020).

notice-and-comment periods, the Office of Management and Budget (OMB) approved the Statutory Notification of PTC System Failures (Form FRA F 6180.177, OMB Control No. 2130-0553),<sup>25</sup> as revised based on feedback from AAR and APTA. Host railroads must utilize that mandatory form and adhere to its instructions, including the two-tiered reporting frequency<sup>26</sup> and the centralized reporting location, to comply with 49 U.S.C. 20157(j)(4) until that temporary reporting requirement expires on approximately December 31, 2021.<sup>27</sup>

In this NPRM, FRA proposes to revise the permanent reporting requirement under § 236.1029(h) to utilize the statutory failure-related terms under 49 U.S.C. 20157(j) initialization failures, cut outs, and malfunctions—instead of the broad, imprecise term currently used in § 236.1029(h) ("failures"). Also, to ensure uniform interpretation of these terms, FRA proposes to add definitions of these three terms to the definitions section of FRA's PTC regulations, 49 CFR 236.1003, retaining the definitions that FRA adopted during its development of the Statutory Notification of PTC System Failures (Form FRA F 6180.177), based on industry's feedback.

FRA's proposed Biannual Report of PTC System Performance (Form FRA F 6180.152) under proposed § 236.1029(h) will incorporate both: (1) the information currently required under § 236.1029(h); and (2) the corresponding types of data railroads must submit until approximately December 31, 2021 in their Statutory Notifications of PTC System Failures (Form FRA F 6180.177). For example, the proposed Biannual

<sup>&</sup>lt;sup>25</sup> Available at https://safetydata.fra.dot.gov/PTCSystemFailuresFRAForm177/.

<sup>&</sup>lt;sup>26</sup> A host railroad must submit *monthly* failure-related notifications if it has fully implemented a PTC system on all required main lines. However, if a host railroad is operating an FRA-certified PTC system but is still in the process of fully implementing the PTC system, the railroad must submit failure-related notifications on a *quarterly* basis. Host railroads must transition from submitting Form FRA F 6180.177 quarterly to monthly, when they finish fully implementing their FRA-certified and interoperable PTC systems on their required main lines. For simplicity, in general, this two-tiered framework means that most host railroads that have obtained PTC System Certification must submit quarterly Statutory Notifications of PTC System Failures throughout 2020, and monthly notifications throughout 2021 until the reporting requirement expires. For additional detail, please see 85 FR 15022, 15025–27 (Mar. 16, 2020). <sup>27</sup> See 49 U.S.C. 20157(i)(4) and (e)(1) (authorizing DOT to assess civil penalties for any violation of the statutory mandate).

Report of PTC System Performance would require certain geographical information and contextual data to help demonstrate how the occurrences of PTC system initialization failures, cut outs, and malfunctions compare to all operations on that host railroad's PTC-governed main lines.<sup>28</sup>

Furthermore, railroads have previously observed that, under existing § 236.1029(h), it is unclear whether a host railroad, a tenant railroad, or both must submit the required reports to FRA. In this proposed rule, FRA proposes to resolve this ambiguity by specifying that only host railroads must directly submit these reports to FRA. This approach is consistent with the existing regulatory requirement directing a tenant railroad to report any PTC system failures or cut outs to "a designated railroad officer of the *host railroad* as soon as safe and practicable." *See* 49 CFR 236.1029(b)(4) (emphasis added). To ensure that host railroads receive the necessary information from their tenant railroads to compile the proposed Biannual Report of PTC System

Performance (Form FRA F 6180.152) under § 236.1029(h), FRA proposes to require explicitly tenant railroads to provide the necessary data to their applicable host railroads by a specific date before the biannual filing deadlines, as set forth under new proposed paragraph (h)(4) of § 236.1029.

FRA considers its proposed changes to § 236.1029(h), as described below, necessary to enable FRA to monitor the performance and reliability of railroads' PTC systems effectively throughout the country.

# **III.** Section-by-Section Analysis

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<sup>&</sup>lt;sup>28</sup> Several railroads previously commented that, without such a percentage or context, the frequency of PTC system failures might otherwise seem high, and additional data would help convey the actual rate of such failures. In addition, in AAR's comments, dated February 28, 2020, associated with Form FRA F 6180.177 (under Docket Nos. FRA 2019-0004-N-20 and FRA 2020-0004-N-3), AAR specifically suggested that to "keep the report of PTC system initialization failures, cut outs, and malfunctions in perspective, particularly if comparing individual railroads, it would be useful to normalize results between railroads." Similarly, in APTA's letter dated February 28, 2020, APTA requested that FRA identify the applicable denominator(s) to utilize when calculating the rate of PTC system initialization failures, cut outs, and malfunctions. *See also* 85 FR 15022, 15026 (Mar. 16, 2020).

FRA proposes to add three definitions to paragraph (b) of this section to help ensure that FRA and the railroad industry consistently interpret the statutory failure-related terms under 49 U.S.C. 20157(j)—initialization failures, cut outs, and malfunctions—as FRA now proposes to use these corresponding terms in § 236.1029(h) and the associated Biannual Report of PTC System Performance (Form FRA F 6180.152). Specifically, FRA proposes to adopt the definitions of these three terms that FRA currently utilizes in the Statutory Notification of PTC System Failures (Form FRA F 6180.177), which were, in part, revised and refined based on industry's feedback during the development of that corresponding form and the definitions therein.<sup>29</sup> Section 236.1021 Discontinuances, Material Modifications, and Amendments.

The purpose of existing paragraphs (a) through (d) is to prohibit a railroad from making "changes, as defined by this section, to a PTC system, PTCIP, PTCDP, or PTCSP," unless the railroad submits an RFA, with the content requirements under existing paragraphs (d)(1) through (7), and obtains approval from FRA's Associate Administrator for Railroad Safety.

To be clear, this proposed rule will not revise the *types* of changes that currently require a host railroad to file an RFA under § 236.1021(h)(1)–(4) (often referred to as "material modifications") or the exceptions currently set forth under § 236.1021(i)–(k). For example, FRA's regulations currently require a railroad to submit an RFA, subject to FRA's review and approval, before making the following types of changes listed under existing paragraphs (h)(1) through (4): (1) a discontinuance of a PTC system; (2) a decrease of the PTC system's limits; (3) a modification of a safety-critical element of a PTC system; or (4) a modification of a PTC system that affects the safety-critical functionality of any other PTC system with which it interoperates. For context, existing §

<sup>&</sup>lt;sup>29</sup> See 84 FR 72121, 72125 (Dec. 30, 2019); 85 FR 15022, 15025–26 (Mar. 16, 2020).

236.1009(a)(2)(ii) additionally requires a railroad to submit an RFA—specifically to its FRA-approved PTCIP—if the railroad intends to initiate a new category of service (*i.e.*, passenger or freight) or "[a]dd, subtract, or otherwise materially modify one or more lines of railroad for which installation of a PTC system is required."

In general, FRA's proposed revisions to § 236.1021 are primarily intended to streamline the *process* by which host railroads must submit RFAs to their FRA-approved PTCSPs and FRA-certified systems, based on FRA's recognition that the railroad industry intends to update and enhance FRA-certified PTC systems to advance rail safety. Accordingly, FRA's proposed revisions to the process under existing paragraphs (a) through (d) are limited to removing any references to PTCSPs from those paragraphs, as FRA is proposing in this proposed rule to establish a new, streamlined process for RFAs associated with PTCSPs under proposed paragraphs (l) and (m). In addition to FRA's proposal to remove references to PTCSPs from existing paragraphs (a) through (d), FRA proposes to remove paragraph (d)(7) in its entirety, and to incorporate the general principle of paragraph (d)(7) into a new proposed paragraph, (m)(2)(i), as discussed below.

Consistent with the existing requirements under § 236.1021, railroads would still need to submit, and obtain FRA's approval of, RFAs for certain changes to their PTCIPs and PTCDPs, including the types of changes enumerated above under 49 CFR 236.1021(h)(1) through (2) and 236.1009(a)(2)(ii)—*e.g.*, a proposed discontinuance of a PTC system or a proposed addition or removal of track segments from a railroad's PTCIP.

New proposed paragraph (l) would permit host railroads utilizing the same type of PTC system to submit joint RFAs to their PTCSPs and PTCDPs, as those are system-

<sup>&</sup>lt;sup>30</sup> For additional detail and background, please see Section I (*Executive Summary*) and Subsection II-C (*Proposal to Establish a New Process for Modifying FRA-certified PTC Systems and the Associated PTCSPs*) of this NPRM.

based documents, albeit with some railroad-specific variances. FRA expects that host railroads would utilize this joint RFA option to the extent practicable, and it would efficiently leverage industry's resources, help ensure coordination among railroads operating the same types of PTC systems, and reduce the number of similar or identical RFA filings host railroads submit to FRA for review and approval. Because changes to safety-critical elements, including software or system architecture, of a certain PTC system would likely impact multiple, if not most, railroads implementing that same type of PTC system, FRA proposes to outline a path for such host railroads to submit joint RFAs to their PTCSPs, with specific instructions under proposed paragraphs (l) and (m). FRA notes that it would consider it acceptable for an association to submit a joint RFA under proposed paragraph (l), but it would need to be explicitly on behalf of two or more host railroads, and each host railroad would need to sign the filing.

Proposed paragraph (I) would also specify that only host railroads with the same PTC System Certification classification under 49 CFR 236.1015(e) would be able to file a joint RFA to their PTCSPs. For example, when an RFA is necessary under § 236.1021 to account for certain proposed changes to railroads' I-ETMS PTCSPs, or I-ETMS itself, FRA would expect a joint RFA from the set of host railroads whose I-ETMS is certified as a non-vital, overlay PTC system under § 236.1015(e)(1), and a joint RFA from the set of host railroads whose I-ETMS is certified as a mixed PTC system under § 236.1015(e)(4). Two distinct RFAs would be necessary under these circumstances, as the impact of the proposed change(s) would need to be analyzed in the context of the underlying safety analysis in the FRA-approved PTCSPs—a safety analysis that is structured differently based on whether FRA has certified the PTC system as a non-vital, overlay system; a vital, overlay system; a standalone system; or a mixed system.

Furthermore, with respect to joint RFAs, paragraph (l) would specify that, though most types of information required under proposed paragraph (m)(2) may be submitted

jointly in the RFA, a joint RFA would need to include the written confirmation and statement specified under proposed paragraphs (m)(2)(iii) and (iv), as described below, from each host railroad that is a signatory to the joint RFA.

New proposed paragraph (m) would outline the mandatory, three-step process a host railroad would need to follow to make changes to its FRA-certified PTC system and the associated FRA-approved PTCSP. FRA intends the process under proposed paragraph (m) to apply to *all* changes necessitating an RFA under existing paragraphs (h)(3) and (4) of this section—*i.e.*, proposed changes to safety-critical elements of PTC systems and proposed changes to a PTC system that affect the safety-critical functionality of any other PTC system with which it interoperates. For brevity, FRA will refer to these changes as changes to safety-critical elements of PTC systems, as that is sufficiently broad for purposes of paragraph (m).

Proposed paragraph (m)(1) would require a host railroad to revise its PTCSP to account for each proposed change to its PTC system, and summarize such changes in a chronological table of revisions at the beginning of its PTCSP. FRA retains its authority to request a copy of a host railroad's governing PTCSP in accordance with 49 CFR 236.1009(h), *FRA access*, and 49 CFR 236.1037, *Records retention*.

Proposed paragraph (m)(2) would specifically require a host railroad to file an RFA pursuant to paragraph (m) electronically, which could include electronic filing on FRA's Secure Information Repository (https://sir.fra.dot.gov), where railroads currently file other PTC-related documents, or another designated location. If a host railroad wishes to seek confidential treatment of any part of its RFA, the railroad would need to comply with the existing process and requirements under 49 CFR 209.11, Request for confidential treatment, which include marking the document properly with the necessary labels and redactions, and providing a statement justifying nondisclosure and referring to the specific legal authority claimed. FRA would post a host railroad's RFA (the public,

redacted version, if applicable) and FRA's final decision letter in the respective railroad's PTC docket on *http://www.regulations.gov*.<sup>31</sup>

In proposed paragraphs (m)(2)(i) through (v), FRA outlines the proposed content requirements for an RFA to an FRA-certified PTC system and the associated PTCSP—focusing on the core information and analysis FRA would need to review to ensure the PTC system, including any proposed changes, would provide an equivalent or greater level of safety than the existing PTC system. Importantly, proposed paragraph (m)(2)(i) would require the RFA to include a summary of the proposed changes to any safety-critical elements of a PTC system, including a summary of how the changes to the PTC system would affect its safety-critical functionality, how any new hazards have been addressed and mitigated, whether each change is a planned change<sup>32</sup> that was previously included in all required analysis under § 236.1015, or an unplanned change, and the reason for the proposed changes, including whether the changes are necessary to address or resolve an emergency or urgent issue.

FRA's existing paragraphs (d)(7)(i) through (v) of § 236.1021 explain the distinction between an unplanned change and a planned change and impose certain additional requirements, including conducting suitable regression testing to FRA's satisfaction and filing a new PTCDP and PTCSP, under certain circumstances. As noted above, FRA proposes to remove paragraph (d)(7) and instead require a host railroad to identify in its RFA under paragraph (m)(2)(i) only whether the change is a planned change or an unplanned change. That basic information would be valuable to include in the abbreviated RFA under paragraph (m) because several railroads have already accounted for long-term, planned changes to their PTC systems and proactively

<sup>&</sup>lt;sup>31</sup> Railroads' applicable PTC docket numbers are available on FRA's website at *https://railroads.dot.gov/train-control/ptc/ptc-annual-and-quarterly-reports*.

<sup>&</sup>lt;sup>32</sup> See, e.g., 75 FR 2598, 2661 (Jan. 15, 2010) (stating that planned changes "are those that the system developer and the railroad have included in the safety analysis associated with the PTC system, but have not yet implemented. These changes provide enhanced functionality to the system, and FRA strongly encourages railroads to include PTC system improvements that further increase safety.").

integrated those assumptions into the corresponding analyses in their PTCSPs.

Proposed paragraph (m)(2)(ii) would require the RFA to include a copy of any associated software release notes, which would be critical for FRA to review and evaluate before one or more railroads deploy the upgraded software. A copy of the release notes would be integral in conveying the actual changes to the PTC system, including any corrections, enhancements, or new features or functionality.

Proposed paragraph (m)(2)(iii) would require the RFA to contain a confirmation that the host railroad has notified any applicable tenant railroads of the proposed changes, any associated effect on the tenant railroads' operations, and any actions the tenant railroads must take in accordance with the configuration control measures set forth in the host railroad's PTCSP. In addition, proposed paragraph (m)(2)(iv) would require the RFA to include a statement from the host railroad's Chief Engineer and Chief Operating Officer, or executive officers of similar qualifications, verifying that the modified PTC system would meet all technical requirements under 49 CFR part 236, subpart I, provide an equivalent or greater level of safety than the existing PTC system, and not adversely impact interoperability with any tenant railroads. This would be consistent with existing regulatory provisions that require PTC systems to achieve and maintain a level of safety, for each system modification, that is equal to or greater than the level of safety provided by the previous PTC system.<sup>33</sup>

Proposed paragraph (m)(2)(v) would require a host railroad to submit any other information that FRA requests on a case-by-case basis, during FRA's review of the RFA. If FRA were to require a host railroad, or a set of host railroads, to provide additional information in support of the RFA, FRA's request would identify a deadline by which to submit the information. Also, this would be generally consistent with the existing provision under 49 CFR 236.1015(f), which provides that in any case where a PTCSP, or

<sup>&</sup>lt;sup>33</sup> See, e.g., 49 CFR 236.1001(a), 236.1015(d)(11), 236.1015(e)(1)(iii), and 236.1015(g).

an RFA in this scenario, "lacks adequate data regarding [the] safety impacts of the proposed changes, the Associate Administrator may request the necessary data from the applicant."

Proposed paragraph (m)(3) would outline a definite, predictable timeline associated with FRA's review of an RFA to a host railroad's PTCSP or FRA-certified PTC system under proposed paragraph (m). Specifically, proposed paragraph (m)(3) would prohibit a host railroad from making any changes, as defined under 49 CFR 236.1021(h)(3) or (4),<sup>34</sup> to its PTC system until the Director of FRA's Office of Railroad Systems, Technology, and Automation approves the RFA. Under proposed paragraph (m)(3)(i), FRA would review the RFA and issue a decision—*i.e.*, an approval, conditional approval, or denial of the RFA—within 45 days of the date on which the RFA was filed under paragraph (m)(2). FRA's decision would be in the form of a letter from the Director of FRA's Office of Railroad Systems, Technology, and Automation. As noted above, FRA would post each final decision letter in the respective railroad's PTC docket on *http://www.regulations.gov*. FRA, however, may send interim correspondence—including any notices requiring a railroad to provide additional information under proposed paragraph (m)(2)(v)—via e-mail.

Proposed paragraph (m)(3)(ii) would explicitly acknowledge that FRA reserves the right to notify a railroad that it may proceed with making its proposed changes prior to the 45-day mark, including in an emergency or under other circumstances necessitating a railroad's immediate implementation of the proposed changes to its PTC system.

Proposed paragraph (m)(3)(iii) would specify that FRA may require a railroad to modify its RFA and/or its PTC system, but only to the extent necessary to ensure safety or compliance with the requirements under FRA's PTC regulations.

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<sup>&</sup>lt;sup>34</sup> That is, proposed changes to safety-critical elements of PTC systems or proposed changes to a PTC system that affect the safety-critical functionality of any other PTC system with which it interoperates.

If FRA denies an RFA under proposed paragraph (m), proposed paragraph (m)(3)(iv) would specify that each applicable railroad would be prohibited from making the proposed changes to its PTC system until the railroad both sufficiently addresses FRA's questions, comments, and concerns and obtains FRA's approval. Consistent with proposed paragraph (l) of this section, any host railroads utilizing the same type of PTC system, including the same certification classification under paragraph (e) of § 236.1015, would be permitted to submit information jointly to address FRA's questions, comments, and concerns following any denial of an RFA under this section.

FRA expects that its proposed paragraphs (l) and (m) would help establish an improved process that would entail a reasonable level of predictability and transparency in FRA's review process and enable the industry to make technological advancements more efficiently.

Section 236.1029 PTC System Use and Failures.

Currently, paragraph (h) of this section requires railroads to report annually to FRA the number of PTC system failures that occurred during the previous calendar year. FRA is proposing to revise this existing paragraph to clarify and expand the reporting requirement and require host railroads to submit the information in a Biannual Report of PTC System Performance (Form FRA F 6180.152). FRA's proposed Excel-based<sup>35</sup> Form FRA F 6180.152 has been placed in the docket for this NPRM (Docket No. FRA-2019-0075) for reference and review. Proposed paragraph (h)(1) would specify this reporting requirement applies to each host railroad subject to 49 U.S.C. 20157 or 49 CFR part 236, subpart I, which would include any new host railroads that become subject to the statutory mandate in the future and any host railroads that yoluntarily implement a

<sup>&</sup>lt;sup>35</sup> Excel is a registered trademark of Microsoft Corporation. All third-party trademarks belong to their respective owners.

For clarification and simplicity, FRA is proposing to remove the phrase "following the date of required PTC system implementation established by section 20157 of title 49 of the United States Code" from paragraph (h) because that phrase would be unnecessary after the final statutory deadline of December 31, 2020 and retaining that phrase may cause confusion about the applicability of this reporting requirement to new railroads that become subject to the statutory mandate after 2020 or railroads voluntarily implementing PTC systems on non-mandated lines.

In addition, proposed paragraph (h)(1) would require a host railroad to file its Biannual Report of PTC System Performance (Form FRA F 6180.152) *electronically*, which could include electronic filing on FRA's Secure Information Repository (https://sir.fra.dot.gov), where railroads file other PTC-related documents, or another designated location. To the extent a railroad would seek confidential treatment of any part of its Biannual Report of PTC System Performance (Form FRA F 6180.152), the railroad would need to comply with the existing process and requirements under 49 CFR 209.11, including proper labeling and redacting and providing a statement justifying nondisclosure and referring to the specific legal authority claimed. FRA's proposed Form FRA F 6180.152 would contain fields for a host railroad to identify its request for partial or full confidentiality and provide the required statement under § 209.11(c), if applicable.

Also, proposed paragraph (h)(1) would require a host railroad to include in its Biannual Report of PTC System Performance (Form FRA F 6180.152) the figures itemized under proposed paragraphs (h)(1)(i) through (vii) for the host railroad, each of

<sup>&</sup>lt;sup>36</sup> See, e.g., 49 CFR 236.1011(d) (stating that a "railroad that elects to install a PTC system when not required to do so may elect to proceed under this subpart [subpart I] or under subpart H of this part," including the associated filing and reporting requirements).

its applicable tenant railroads (as explained in proposed paragraph (h)(4)), and each of its PTC-governed track segments. In this proposed paragraph, FRA acknowledges that a host railroad's PTCIP may identify or designate its specific track segments as territories, subdivisions, districts, main lines, branches, or corridors, based on a railroad's own naming conventions. FRA expects that requiring this relatively high-level geographical information (*e.g.*, by subdivision, not by milepost location) would still enable FRA to monitor closely trends in PTC system reliability throughout the country and focus its resources, for example, on any areas where PTC system failures are occurring at a high rate.

Consistent with existing paragraph (h), proposed paragraphs (h)(1)(i) through (iii) would require a railroad's biannual report to include the number of PTC-related failures that occurred during the applicable reporting period, in addition to a numerical breakdown of the "failures by category, including but not limited to locomotive, wayside, communications, and back office system failures," quoting existing 49 CFR 236.1029(h). In proposed paragraphs (h)(1)(i) through (iii), however, FRA acknowledges that the source or cause of a PTC system failure might not necessarily involve, in every instance, the PTC system itself, so FRA proposes to include an additional category for railroads to select in the applicable drop-down menu in Form FRA F 6180.152—*i.e.*, "a non-PTC component."

Another difference between the existing paragraph (h) and FRA's proposed paragraphs (h)(1)(i) through (iii) is that FRA's proposed language utilizes the statutory terminology under 49 U.S.C. 20157(j)(4) as referenced above—initialization failures, cut outs, and malfunctions—which would be defined under paragraph (b) of § 236.1003. FRA is aware that railroads track their PTC system failures in this manner (by type of failure), given the existing temporary reporting requirement under 49 U.S.C. 20157(j)(4) and FRA's associated mandatory form, the Statutory Notification of PTC System Failures

(Form FRA F 6180.177).

In proposed paragraph (h)(1)(iv), FRA is proposing to expand the existing reporting requirement under paragraph (h) to encompass certain positive, performancerelated information, as otherwise the information FRA receives would be about PTC system failures only. FRA proposes to require railroads' Biannual Reports of PTC System Performance to include data about PTC technology's positive impact on rail safety and the extent to which PTC systems are functioning as designed—to prevent train-to-train collisions, over-speed derailments, incursions into established work zones, and movements of trains through switches left in the wrong position.<sup>37</sup> Specifically, proposed paragraph (h)(1)(iv) would require a host railroad to identify the number of intended enforcements by the PTC system and any other instances in which the PTC system prevented an accident or incident on the host railroad's PTC-governed main lines, during the applicable reporting period. This type of statistic would be valuable and help demonstrate the extent to which PTC systems are meeting their desired objectives. FRA would interpret the term "intended enforcement" in this proposed paragraph consistently with how the term "enforce" is applied in FRA's existing PTC regulations, which include references to how a PTC system shall enforce speeds, movement authorities, signal indications, and so forth. See, e.g., 49 CFR 236.1005, 236.1013, 236.1015, and 236.1047(a)(3).

In proposed paragraphs (h)(1)(v) through (vii), FRA would require a railroad's Biannual Report of PTC System Performance to include certain contextual data to help FRA understand how the occurrences of PTC system initialization failures, cut outs, and malfunctions compare to all operations on that host railroad's PTC-governed main

<sup>37</sup> See 49 U.S.C. 20157(g)(1), (i)(5); 49 CFR 236.1005.

lines.<sup>38</sup> Specifically, proposed paragraph (h)(1)(v) would require a railroad's biannual report to include the number of scheduled attempts at initialization of the PTC system during the applicable reporting period, which would help FRA calculate the actual rate of that railroad's PTC system initialization failures. Respectively, proposed paragraphs (h)(1)(vi) and (vii) would require the railroad to provide the number of trains and the number of train miles governed by the PTC system during the applicable reporting period. FRA's proposed paragraphs (h)(1)(v) through (vii) would generally encompass the same types of denominators currently set forth in the Statutory Notification of PTC System Failures (Form FRA F 6180.177) with one notable difference.

In FRA's proposed paragraphs (h)(1)(v) through (vii), unlike Form FRA F 6180.177, FRA would be uniformly requiring those three data points from a host railroad and its applicable tenant railroads. In practice, FRA has found that host railroads providing certain denominators for tenant railroads (*i.e.*, PTC-governed trains) and other denominators for the host railroad itself (*i.e.*, scheduled attempts at initialization and PTC-governed train miles) makes it difficult for FRA to evaluate the rate at which failures are occurring system-wide. FRA expects that requiring uniform figures would help the agency derive more accurate, objective, and comparable statistics. Furthermore, FRA understands that host railroads collect the type of data under proposed paragraphs (h)(1)(v) through (vii) for their own operations and their tenant railroads' operations because several host railroads have provided those additional data points in their Statutory Notifications of PTC System Failures (Form FRA F 6180.177) to date.

Proposed paragraph (h)(2) would require a host railroad's Biannual Report of PTC System Performance (Form FRA F 6180.152) to include a summary of any actions

helps FRA accurately interpret railroads' data, especially when comparing multiple railroads' data or a single railroad's data to its own prior reports.

<sup>&</sup>lt;sup>38</sup> FRA's proposed Biannual Report of PTC System Performance (Form FRA F 6180.152) would include fields for host railroads to provide the raw denominators set forth under proposed paragraphs (h)(1)(v) through (vii), and FRA would calculate the rate of failures, utilizing those raw denominators. FRA has found that providing fields for railroads to enter such raw denominators, instead of percentages or rates,

the host railroad and its tenant railroads are taking to improve the performance and reliability of the PTC system continually. This narrative section would provide railroads an opportunity to explain briefly the steps they are taking to improve their PTC system's performance, which could also help put the biannual statistics into perspective. FRA did not propose including this content requirement under proposed paragraph (h)(1) because that paragraph would be track segment-specific, and FRA acknowledges that railroads generally take a system-wide approach to improving their PTC systems. Accordingly, FRA proposes to categorize this content requirement in the separate, proposed paragraph (h)(2), and FRA's proposed, Excel-based Form FRA F 6180.152 would contain a field for railroads to enter this summary.

Proposed paragraph (h)(3) outlines the dates by which host railroads would submit their Biannual Reports of PTC System Performance (Form FRA F 6180.152) to FRA—i.e., by July 31 (covering the period from January 1 to June 30), and by January 31 (covering the period from July 1 to December 31 of the prior calendar year). FRA expects that providing railroads one full month (from the end of the half-year period) to complete Form FRA 6180.152 would be sufficient and reasonable, given railroads' experience, since 2016, in submitting their Ouarterly PTC Progress Reports (Form FRA F 6180.165) one month after the end of the quarter. Furthermore, under the temporary Statutory Notification of PTC System Failures (Form FRA F 6180.177), the due date for any monthly notification is currently the 15<sup>th</sup> of the following month—so, for example. the notification regarding initialization failures, cut outs, and malfunctions during November 2020 is due by December 15, 2020 for the subset of host railroads that have fully implemented an FRA-certified PTC system. Accordingly, FRA expects that allowing one full month for railroads to prepare and submit their Biannual Reports of PTC System Performance (Form FRA F 6180.152) under proposed paragraph (h)(3) would be a reasonable timeframe for this permanent reporting requirement.

Proposed paragraph (h)(4) would explicitly require any applicable tenant railroads that operate on a host railroad's PTC-governed main line(s) to provide the necessary data to their applicable host railroads by a specific date before the biannual filing deadlines—
i.e., by July 15 (for the biannual report covering the period from January 1 to June 30) and by January 15 (for the biannual report covering the period from July 1 to December 31 of the prior calendar year). The text in proposed paragraph (h)(4) clarifies, however, that a host railroad would not need to include data in Form FRA F 6180.152 regarding a tenant railroad that is subject to an exception under 49 CFR 236.1006(b)(4) or (5) during the applicable reporting period because such a tenant railroad's movements would not be governed by PTC technology in that case and there would not be any pertinent, performance-related data to submit.

In general, FRA's proposed paragraph (h)(4) regarding tenant railroad responsibilities is based, in part, on comments AAR and APTA previously submitted during the comment period associated with the Statutory Notification of PTC System Failures (Form FRA F 6180.177). Specifically, on February 28, 2020, AAR commented, "[i]f FRA is going to require hosts to report tenant data, the agency must impose a clear and direct requirement on tenants to report the desired information to their host railroad." In APTA's comments, also dated February 28, 2020, APTA observed that a host railroad would need to obtain "all necessary logs to complete the analyses" from its tenant railroads to complete Form FRA F 6180.177 accurately. FRA acknowledges that an existing regulatory provision, 49 CFR 236.1029(b)(4), already requires a tenant railroad to report a PTC system failure or cut out to "a designated railroad officer of the host railroad as soon as safe and practicable." In addition, FRA is aware that several host railroads, including Class I railroads and passenger railroads, already regularly monitor

<sup>&</sup>lt;sup>39</sup> See Docket Nos. FRA 2019-0004-N-20 and FRA 2020-0004-N-3; 85 FR 15022, 15027 (Mar. 16, 2020).

<sup>&</sup>lt;sup>40</sup> See id.

and track tenant railroads' PTC system initialization failures, cut outs, and malfunctions via automatically generated reports and/or via connected PTC system back offices.

FRA expects that the language in proposed paragraph (h)(4) would help clarify the existing obligation on tenant railroads to provide certain data to their host railroads. Also, proposed paragraph (h)(4) would help ensure that host railroads receive tenant railroads' necessary data for purposes of the reporting requirement under paragraph (h) in a timely manner. Specifically, in proposed paragraph (h)(4), FRA proposes to require each applicable tenant railroad to submit the information required under proposed paragraphs (h)(1) and (2) to each applicable host railroad by July 15 (for the report covering the period from January 1 to June 30) and by January 15 (for the report covering the period from July 1 to December 31 of the prior calendar year). FRA expects that adding proposed paragraph (h)(4) to its regulations would offer more clarity and certainty about the timeframe under which tenant railroads would provide host railroads the information necessary to prepare and submit their Biannual Reports of PTC System Performance (Form FRA F 6180.152). In addition, this proposed paragraph would help ensure that host railroads receive such data at least 15 days before the biannual filing deadlines under proposed paragraph (h)(3), i.e., July 31 and January 31.

# IV. Regulatory Impact and Notices

A. Executive Orders 12866 and 13771 and DOT Regulatory Policies and Procedures

This proposed rule is a nonsignificant regulatory action under Executive Order

12866, "Regulatory Planning and Review," and DOT's Administrative Rulemaking,

Guidance, and Enforcement Procedures in 49 CFR part 5. FRA made this determination

by finding that the economic effects of this proposed regulatory action would not exceed

the \$100 million annual threshold defined by Executive Order 12866. This proposed rule

<sup>&</sup>lt;sup>41</sup> See 58 FR 51735 (Sep. 30, 1993).

is considered a deregulatory action under Executive Order 13771.<sup>42</sup> FRA estimates this proposed rule would result in cost savings for the industry over a ten-year period.

This proposed rule would reduce the burden on railroads while not adversely affecting railroad safety. To enable FRA to oversee the performance and reliability of railroads' PTC systems effectively, FRA is proposing to change the reporting requirement under 49 CFR 236.1029(h). FRA's proposed changes include, but are not limited to, increasing the reporting frequency from annual to biannual, clarifying the types of statistics and information the reports must include, and expanding the reporting requirement to encompass positive performance-related information, not just failure-related information. The amended provision would require host railroads to submit additional information. Accordingly, FRA estimates that the number of hours it would take a host railroad to report the required information under § 236.1029(h) would increase under the proposed rule. To provide clarity and precision regarding the reporting requirement under § 236.1029(h), FRA has developed a proposed, Excel-based Biannual Report of PTC System Performance (Form FRA F 6180.152) that railroads would utilize to satisfy this reporting requirement.

While FRA is proposing to expand this existing reporting requirement, the regulatory and administrative burden on host railroads would be reduced under § 236.1021. Specifically, FRA is proposing to establish a streamlined process to enable the railroad industry to make technological advancements to FRA-certified PTC systems more efficiently and with FRA's continued oversight. Instead of the existing RFA approval process under § 236.1021, FRA proposes to: (1) require host railroads to comply with a streamlined process, which would include providing certain safety assurances and analysis in a concise RFA; and (2) establish a 45-day FRA decision deadline. This more efficient process is expected to result in cost savings for both the

<sup>&</sup>lt;sup>42</sup> See 82 FR 9339 (Feb. 3, 2017).

host railroads and the government. FRA's proposed simplification of the content requirements associated with an RFA to a PTCSP under § 236.1021 would reduce the number of burden hours per RFA. In addition, FRA is proposing to permit host railroads utilizing the same type of PTC system to submit joint RFAs to their PTCDPs and PTCSPs, thus reducing the number of RFAs railroads would need to submit in the future.

Currently, 35 host railroads are required to submit RFAs before making certain changes to their PTCSPs under § 236.1021, with many host railroads projected to submit one RFA to a PTCSP per year. Over the next ten years, FRA expects there will be an average increase of 1.5 new PTC-governed host railroads per year, beginning in the second year, for a total of approximately 14 additional host railroads. Table A summarizes the types of PTC systems the 35 host railroads currently subject to the statutory mandate are implementing as of 2020 and the approximate number of RFAs host railroads would file to their PTCSPs under existing regulations.

Table A. Estimated Number of Required RFAs to PTCSPs by Type of PTC System

Type of PTC System	PTC Systems Being Implemented by Host Railroads (as of 2020) <sup>43</sup>	Annual Number of RFAs per PTC System	Total Number of RFAs
ACSES II	8	1	8
CBTC	1	1	1
E-ATC	5	1	5
ITCS	1	1	1
I-ETMS	26	2	52
Total	41		67

Currently, without the proposed rule, FRA estimates the 35 host railroads would need to submit approximately 67 RFAs annually given the types of changes the industry intends to make to their PTC systems each year under 49 CFR 236.1021(h)(3)–(4) in the future.<sup>44</sup> FRA has estimated that the current hourly burden is 160 hours per RFA, based on previously approved PTC Information Collection Requests (ICRs).

<sup>44</sup> Previously, FRA estimated it would receive, on average, approximately 10 RFAs to railroads' PTCIPs, PTCDPs, and PTCSPs each year. However, from discussions with PTC-mandated railroads, FRA found

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<sup>&</sup>lt;sup>43</sup> Several host railroads are implementing multiple types of PTC systems.

Table B below provides the current hourly burden and costs that host railroads face when submitting RFAs to their PTCSPs under the existing § 236.1021.

Table B. Current Host Railroad Hourly Burden and Cost for RFAs to PTCSPs

Year	Submissions	Hour Burden per Submission	Total Annual Cost	7-Percent	3-Percent
1	67	160	\$830,505	\$830,505	\$830,505
2	69	160	\$855,296	\$799,342	\$830,385
3	70	160	\$867,692	\$757,876	\$817,883
4	72	160	\$892,483	\$728,532	\$816,749
5	73	160	\$904,879	\$690,328	\$803,973
6	75	160	\$929,670	\$662,842	\$801,942
7	76	160	\$942,066	\$627,738	\$788,965
8	78	160	\$966,857	\$602,110	\$786,143
9	79	160	\$979,252	\$569,934	\$773,031
10	81	160	\$1,004,044	\$546,133	\$769,516
Total	740		\$9,172,744	\$6,815,340	\$8,019,091

#### **Costs**

As described above, FRA is also proposing to amend a reporting requirement by increasing the frequency from annual to biannual, clarifying the types of statistics and information the reports must include, and expanding the reporting requirement to encompass positive performance-related information. Though FRA's proposed rule will increase the number of required submissions, as well as the hourly burden per submission, FRA estimates any new costs will be minimal and offset by the cost savings derived from the proposed changes as presented in the Cost Savings section below.

To clarify the information FRA is requesting from host railroads, FRA created an Excel-based form for the Biannual Report of PTC System Performance (Form FRA F 6180.152). This form will incorporate the information currently required under 49 CFR 236.1029(h) and the additional types of information specified in this NPRM.<sup>45</sup> Host

the estimate did not account adequately for the number of RFAs host railroads intend to submit to their PTCSPs annually under § 236.1021(h)(3)–(4) without the proposed rule. Tables A, B, and F in this proposed rule estimate more accurately the approximate average number of RFAs host railroads would submit to their PTCSPs each year under the existing regulations and under the proposed rule. *See* 84 FR 72121, 72127 (Dec. 30, 2019).

<sup>&</sup>lt;sup>45</sup> The proposed Biannual Report of PTC System Performance (Form FRA F 6180.152) will be placed in the docket (Docket No. FRA-2019-0075) for review when this NPRM is published.

railroads with FRA-certified PTC systems are experienced in compiling this type of information, given the corresponding reporting requirements under the temporary Statutory Notification of PTC System Failures (Form FRA F 6180.177, OMB Control No. 2130-0553).

The hourly burden associated with submitting the required information will increase initially from 8 hours to 12 hours per report on average. FRA estimates that, over time, railroads will develop procedures that decrease the reporting burden from 12 hours per submission to 10 hours per submission. FRA assumes this decrease will begin in the fourth year of the analysis as host railroads become familiar with the Excel-based form and as they develop processes to improve their data collection and reporting.

In addition to the increase in hourly burden, FRA estimates an increased burden will result from the additional annual report this proposed rule will require. Consistent with the previously stated estimates, FRA assumes that 35 host railroads will submit these biannual reports, and the number of applicable host railroads will increase by 1.5 on average each year.

This analysis accounts for the marginal increase of four hours for the first three years of a host railroad reporting and two hours for each subsequent year. Table C below shows the marginal hourly burden increase associated with railroads' reporting under the proposed rule.

Table C. Ten-Year Host Railroad Marginal Burden Increase

Year	Number of Host Railroad Submissions with Marginal 4-Hour Burden	Number of Host Railroad Submissions with Marginal 2-Hour Burden	Total Marginal Hourly Burden
1	35	0	140
2	37	0	146
3	38	0	152
4	2	38	84
5	3	38	88
6	5	38	96
7	4	40	96
8	4	42	100

Total	136	284	1.110
10	4	45	106
9	4	43	102

In addition to the marginal increase, host railroads will face an additional reporting burden due to the proposed change from annual to biannual reporting. This analysis accounts for the new burden of 12 hours for the first three years of a host railroad's reporting and 10 hours for each subsequent year to account for the proposed change from annual to biannual reporting. Table D below shows the new hourly burden under this proposed rule for the ten-year period of this analysis.

**Table D. Ten-Year Host Railroad New Submissions** 

Year	Number of Host Railroad Submissions with New 12-Hour Burden	Number of Host Railroad Submissions with New 10-Hour Burden	Total New Hourly Burden
1	35	0	420
2	37	0	438
3	38	0	456
4	2	38	404
5	3	38	416
6	5	38	440
7	4	40	448
8	4	42	468
9	4	43	478
10	4	45	498
Total	136	284	4,466

FRA calculated the total additional burden hours for submissions by multiplying the respective number of submissions with their associated annual burden for each individual year. The summation of the hourly burden is multiplied by the fully burdened wage rate of a Professional and Administrative employee. For purposes of this analysis, FRA uses the fully burdened rate of \$77.47 to calculate both the costs and cost savings throughout this analysis.<sup>46</sup> Table E provides the ten-year cost to the railroad industry associated with the expanded reporting requirement, as proposed.

**Table E. Ten-Year Total Costs** 

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 $<sup>^{46}</sup>$  2019 Composite Surface Transportation Board (STB) Professional and Administrative hourly wage rate of \$44.27 burdened by 75-percent (\$44.27 x 1.75 = \$77.47).

Year	Total Marginal Hour Burden	Total New Submission Hour Burden	Total New Complete Hour Burden	Total Annual Host Railroad Submissions Cost <sup>47</sup>	7-Percent	3-Percent
1	140	420	560	\$43,385	\$43,385	\$43,385
2	146	438	584	\$45,244	\$42,284	\$43,926
3	152	456	608	\$47,103	\$41,142	\$44,399
4	84	404	488	\$37,807	\$30,861	\$34,598
5	88	416	504	\$39,046	\$29,788	\$34,692
6	96	440	536	\$41,525	\$29,607	\$35,820
7	96	448	544	\$42,145	\$28,083	\$35,296
8	100	468	568	\$44,004	\$27,404	\$35,780
9	102	478	580	\$44,934	\$26,152	\$35,471
10	106	498	604	\$46,793	\$25,453	\$35,863
Total	1,110	4,466	5,576	\$431,987	\$324,158	\$379,231

\*Note: Table may not sum due to rounding.

FRA estimates that the total cost to the railroad industry will be \$324,158, discounted at 7 percent, or \$379,231, discounted at 3 percent. In terms of governmental costs associated with the expanded reporting requirement, including the proposed increase from annual to biannual reporting, FRA expects it will cost approximately \$10,000, over the ten-year period, to review the additional data railroads will submit in the proposed Biannual Reports of PTC System Performance (Form FRA F 6180.152). As FRA considers these additional governmental costs to be *de minimis*, they are not included in the economic analysis.

#### **Cost Savings**

There are currently 35 host railroads that are required to submit an RFA before changing safety-critical elements of their PTC systems and their PTCSPs. FRA estimates that over the next ten years, the number of PTC-governed host railroads will increase by approximately 14, for a total of 49 host railroads. For purposes of this analysis, FRA estimates that approximately 1.5 new host railroads are added each year, beginning in year two.

Currently, under FRA's existing regulations, FRA estimates that host railroads will submit 67 annual RFAs to their PTCSPs that FRA must review and approve before

<sup>47</sup> Total Annual Host Railroad Submissions Cost = Total New Complete Hour Burden x \$77.47.

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those host railroads change and improve their PTC systems. Under this proposed rule, FRA is proposing to permit host railroads utilizing the same type of PTC system to submit joint RFAs to their PTCDPs and PTCSPs.<sup>48</sup>

Table F below shows the number of RFAs to PTCSPs that would be submitted under the existing regulation and the proposed rule. Over a ten-year period, FRA estimates that the changes described in this proposed rule will result in railroads submitting approximately 590 fewer RFAs.

**Table F. Estimated Number of RFAs to PTCSPs** 

Current Types of PTC Systems	Approximate # of RFAs to PTCSPs per Year Under Existing Regulations	Approximate # of RFAs to PTCSPs per Year Under Proposal	Total # of Reduction of RFAs to PTCSPs
ACSES II	8	8	0
CBTC	1	1	0
E-ATC	5	1	4
ITCS	1	1	0
I-ETMS	52	4 <sup>49</sup>	48
<b>Subtotal in Year 1:</b>	67	15	52

FRA estimates the current burden is 160 hours per RFA to a PTCSP based on the existing RFA content requirements. FRA's proposed simplification of the content requirements would reduce the burden hours by 50 percent, resulting in 80 burden hours per RFA. Table G provides the estimated ten-year cost to host railroads based on FRA's proposal to simplify the RFA process.

Table G. Ten-Year Cost of Joint RFAs and Simplified RFAs

Year Submission		Hour Burden per	Total Annual	7-	3-
1 car Submissions	Subinissions	Submission	Cost Savings	Percent	Percent
1	15	80	\$92,967	\$92,967	\$92,967
2	15	80	\$92,967	\$86,885	\$90,259
3	15	80	\$92,967	\$81,201	\$87,630
4	15	80	\$92,967	\$75,889	\$85,078
5	15	80	\$92,967	\$70,924	\$82,600

<sup>&</sup>lt;sup>48</sup> FRA expects its proposal to allow host railroads to submit joint RFAs to impact primarily host railroads implementing I-ETMS and E-ATC because each I-ETMS system is relatively similar and manufactured by the same set of suppliers, and each E-ATC system is relatively similar and manufactured by the same set of suppliers.

<sup>&</sup>lt;sup>49</sup> For I-ETMS systems, FRA estimates the total number of annual RFAs to PTCSPs would be reduced from 52 (under the existing regulation) to 4 (under the proposed rule)—*i.e.*, 2 RFAs per year from the set of railroads whose I-ETMS is certified as a mixed PTC system and 2 RFAs per year from the set of railroads whose I-ETMS is certified as a non-vital, overlay PTC system.

Total	150		\$929,670	\$698,669	\$816,818
10	15	80	\$92,967	\$50,568	\$71,251
9	15	80	\$92,967	\$54,108	\$73,389
8	15	80	\$92,967	\$57,895	\$75,591
7	15	80	\$92,967	\$61,948	\$77,858
6	15	80	\$92,967	\$66,284	\$80,194

Overall, FRA expects that simplifying the content requirements for RFAs to PTCSPs, as well as permitting host railroads utilizing the same type of PTC system to submit joint RFAs, will result in a ten-year cost savings of \$6.1 million, discounted at 7 percent, or \$7.2 million, discounted at 3 percent.

Table H. Total Ten-Year Cost Savings Associated with Proposed § 236.1021

Year	Current Host Railroad Costs (Without Proposed Regulation)	Cost of Joint RFAs and Simplified RFA Process (With Proposed Rule)	Total Annual Cost Savings	7-Percent	3-Percent
1	\$830,505	\$92,967	\$737,538	\$737,538	\$737,538
2	\$855,296	\$92,967	\$762,329	\$712,457	\$740,126
3	\$867,692	\$92,967	\$774,725	\$676,675	\$730,253
4	\$892,483	\$92,967	\$799,516	\$652,643	\$731,671
5	\$904,879	\$92,967	\$811,912	\$619,404	\$721,373
6	\$929,670	\$92,967	\$836,703	\$596,558	\$721,747
7	\$942,066	\$92,967	\$849,099	\$565,790	\$711,107
8	\$966,857	\$92,967	\$873,890	\$544,215	\$710,552
9	\$979,252	\$92,967	\$886,285	\$515,826	\$699,642
10	\$1,004,044	\$92,967	\$911,077	\$495,565	\$698,264
Total	\$9,172,744	\$929,670	\$8,243,074	\$6,116,671	\$7,202,273

In addition, FRA's proposed changes to the RFA process will result in cost savings for the government, through a reduction in time needed to review an RFA with the existing contents under 49 CFR 236.1021(d)(1)–(7). Under the proposed rule, FRA will review a streamlined RFA with the more focused information that new proposed paragraph (m)(2) would require.

Table I below outlines the assumptions that FRA used to calculate the governmental cost savings. FRA's estimates assume there will be PTC system changes that are complex and will require additional time to review, as well as system changes that are less complex.

**Table I. Government Administrative Cost Assumptions** 

Staff Level	Average Employee Count Needed	Average Hourly Burden	Average Hourly Salary	Fully Burdened Rate	Cost Savings per Staff Level
GS-15	1	10	\$77.75	\$136.07	\$1,315
GS-14	2	105	\$62.34	\$109.10	\$19,171
GS-13	2	119	\$49.71	\$86.99	\$20,646
Total	5	234	\$189.81	\$332.17	\$41,132

Without the proposed rule, FRA would be required to review and approve or deny all 67 of the RFAs to PTCSPs that would be submitted annually. FRA estimated that over the next ten years, the total cost to the government would be \$30.4 million. Table J provides an overview of the ten-year government burden without the proposed rule.

Table J. Ten-Year Government Burden (Without Proposed Rule)

Year	Submissions	Government Cost to Review Each Submission	Total Annual Cost	7-Percent	3-Percent
1	67	\$41,132	\$2,755,871	\$2,755,871	\$2,755,871
2	69	\$41,132	\$2,838,136	\$2,652,463	\$2,755,471
3	70	\$41,132	\$2,879,268	\$2,514,864	\$2,713,986
4	72	\$41,132	\$2,961,533	\$2,417,493	\$2,710,222
5	73	\$41,132	\$3,002,665	\$2,290,719	\$2,667,829
6	75	\$41,132	\$3,084,930	\$2,199,512	\$2,661,088
7	76	\$41,132	\$3,126,062	\$2,083,027	\$2,618,028
8	78	\$41,132	\$3,208,327	\$1,997,985	\$2,608,664
9	79	\$41,132	\$3,249,460	\$1,891,215	\$2,565,153
10	81	\$41,132	\$3,331,724	\$1,812,237	\$2,553,489
Total	740	\$411,324	\$30,437,976	\$22,615,387	\$26,609,802

Based on the proposed changes to § 236.1021, the number of RFAs that FRA would be required to review will decrease from 67 to 15 per year, beginning in the first year. This reduction is the same as seen in the cost savings above. The resulting reduction would mean that the new government cost to review the RFAs would be reduced to \$6.2 million over the ten-year period. Table K below outlines the government costs under the proposed rule.

Table K. Ten-Year New Government Burden

Year	Submissions	Government Cost to Review Each Submission	Total Annual Cost Savings	7-Percent	3-Percent
1	15	\$41,132	\$616,986	\$616,986	\$616,986
2	15	\$41,132	\$616,986	\$576,622	\$599,016

3	15	\$41,132	\$616,986	\$538,899	\$581,568
4	15	\$41,132	\$616,986	\$503,644	\$564,630
5	15	\$41,132	\$616,986	\$470,696	\$548,184
6	15	\$41,132	\$616,986	\$439,902	\$532,218
7	15	\$41,132	\$616,986	\$411,124	\$516,716
8	15	\$41,132	\$616,986	\$384,228	\$501,666
9	15	\$41,132	\$616,986	\$359,091	\$487,054
10	15	\$41,132	\$616,986	\$335,600	\$472,868
Total	150	\$411,324	\$6,169,860	\$4,636,793	\$5,420,906

FRA estimates that its proposed changes will result in a ten-year government cost savings of \$18.0 million, discounted at 7 percent, or \$21.2 million, discounted at 3 percent.

**Table L. Government Administrative Cost Savings** 

Year	Current Government Cost to Review Submissions (Without Proposed Rule)	Government Cost to Review Submissions (With Proposed Rule)	Total Annual Cost Savings	7-Percent	3-Percent
1	\$2,755,871	\$616,986	\$2,138,885	\$2,138,885	\$2,138,885
2	\$2,838,136	\$616,986	\$2,221,150	\$2,075,841	\$2,156,456
3	\$2,879,268	\$616,986	\$2,262,282	\$1,975,965	\$2,132,418
4	\$2,961,533	\$616,986	\$2,344,547	\$1,913,849	\$2,145,592
5	\$3,002,665	\$616,986	\$2,385,679	\$1,820,023	\$2,119,645
6	\$3,084,930	\$616,986	\$2,467,944	\$1,759,610	\$2,128,870
7	\$3,126,062	\$616,986	\$2,509,076	\$1,671,904	\$2,101,312
8	\$3,208,327	\$616,986	\$2,591,341	\$1,613,757	\$2,106,998
9	\$3,249,460	\$616,986	\$2,632,474	\$1,532,124	\$2,078,099
10	\$3,331,724	\$616,986	\$2,714,738	\$1,476,638	\$2,080,621
Total	\$30,437,976	\$6,169,860	\$24,268,116	\$17,978,594	\$21,188,896

### Results

This proposed rule would reduce the burden on railroads while not adversely affecting railroad safety. To oversee the performance and reliability of railroads' PTC systems, FRA is proposing to expand the reporting requirement under 49 CFR 236.1029(h), as described above. FRA estimates that the total ten-year industry cost associated with the expanded reporting requirement under § 236.1029(h) will be \$324,158, discounted at 7 percent, or \$379,231, discounted at 3 percent.

Though FRA is proposing to expand certain reporting requirements, the

regulatory and administrative burden on host railroads will be reduced overall. The proposed simplification of RFAs to PTCSPs will reduce the number of burden hours per RFA. Also, FRA is proposing to permit host railroads utilizing the same type of PTC system to submit joint RFAs to their PTCDPs and PTCSPs, thus reducing the number of submissions railroads will need to submit in the future.

FRA expects that its proposed changes will result in a ten-year cost savings for the railroad industry of \$6.1 million, discounted at 7 percent, or \$7.2 million, discounted at 3 percent. In addition, during the same period, FRA expects that the proposed changes will produce government cost savings amounting to \$18.0 million, discounted at 7 percent, or \$21.2 million, discounted at 3 percent.

FRA estimates that the total net cost savings for this proposed rule will be \$23.8 million, discounted at 7 percent, or \$28.0 million, discounted at 3 percent. The annualized cost savings will be \$3.4 million, discounted at 7 percent, or \$3.3 million, discounted at 3 percent.

Table M. Total Ten-Year Net Cost Savings

Year	Total Industry Cost Savings	Total Government Cost Savings	Total Industry Costs	Total Net Cost Savings	7-Percent	3-Percent
1	\$737,538	\$2,138,885	\$43,385	\$2,833,038	\$2,833,038	\$2,833,038
2	\$762,329	\$2,221,150	\$45,244	\$2,938,235	\$2,746,014	\$2,852,655
3	\$774,725	\$2,262,282	\$47,103	\$2,989,904	\$2,611,498	\$2,818,271
4	\$799,516	\$2,344,547	\$37,807	\$3,106,256	\$2,535,631	\$2,842,665
5	\$811,912	\$2,385,679	\$39,046	\$3,158,545	\$2,409,639	\$2,806,326
6	\$836,703	\$2,467,944	\$41,525	\$3,263,122	\$2,326,561	\$2,814,797
7	\$849,099	\$2,509,076	\$42,145	\$3,316,030	\$2,209,611	\$2,777,123
8	\$873,890	\$2,591,341	\$44,004	\$3,421,227	\$2,130,568	\$2,781,770
9	\$886,285	\$2,632,474	\$44,934	\$3,473,825	\$2,021,798	\$2,742,269
10	\$911,077	\$2,714,738	\$46,793	\$3,579,022	\$1,946,751	\$2,743,022
Total	\$8,243,074	\$24,268,116	\$431,987	\$32,079,203	\$23,771,107	\$28,011,938
Annualized					\$3,384,471	\$3,283,854

FRA requests comments on the assumptions and burden estimates that are used within this analysis.

#### B. Regulatory Flexibility Act and Executive Order 13272

The Regulatory Flexibility Act of 1980 (5 U.S.C. 601, et seq.) and Executive Order 13272, "Proper Consideration of Small Entities in Agency Rulemaking," (67 FR 53461 (Aug. 16, 2002)) require agency review of proposed and final rules to assess their impacts on small entities. An agency must prepare an Initial Regulatory Flexibility Analysis (IRFA) unless it determines and certifies that a rule, if promulgated, would not have a significant economic impact on a substantial number of small entities. FRA has not determined whether this proposed rule would have a significant economic impact on a substantial number of small entities. Therefore, FRA seeks comment on the potential small business impacts of the proposed requirements in this NPRM. FRA prepared an IRFA, which is included below, to aid the public in commenting on the potential small business impacts of the proposed requirements in this NPRM.

## 1. Reasons for Considering Agency Action

FRA is initiating the proposed rulemaking to enable railroads to make technological advancements to their PTC systems more efficiently, with FRA's continued oversight, by improving and streamlining the RFA process under 49 CFR 236.1021. Without the proposed rule, each host railroad would be required to submit independently an RFA, with the information required under 49 CFR 236.1021(d)(1)–(7), several times per year and wait for FRA to approve each RFA prior to implementing enhancements or necessary changes to existing FRA-certified technology.

In addition, FRA is proposing to improve the reporting requirement under 49 CFR 236.1029(h) by, for example, increasing the reporting frequency from annual to biannual, updating the provision to use certain statutory terminology for consistency, and expanding the reporting requirement to encompass positive performance-related information, so FRA can oversee PTC systems' performance and reliability more effectively. To reduce the burden on host railroads, FRA has developed an Excel-based

form (Form FRA F 6180.152) in which all the information could be succinctly input and sent to FRA electronically.

# 2. A Succinct Statement of the Objectives of, and the Legal Basis for, the Proposed Rule

The objective of this proposed rule is to establish an improved process to enable the industry to make technological advancements to FRA-certified PTC systems more efficiently, and with FRA's continued oversight. Instead of the existing approval process under § 236.1021, FRA proposes to require host railroads to comply with a streamlined process, which includes providing certain safety assurances and analysis. This improved process is expected to result in cost savings for both the host railroads and the government. Furthermore, FRA proposes to permit host railroads utilizing the same type of PTC system to submit joint RFAs to their PTCDPs and PTCSPs, which would benefit both the industry and FRA.

FRA is also proposing to expand the reporting requirement under § 236.1029(h) to enable FRA to oversee PTC systems' performance and reliability effectively. The expanded reporting requirement would increase the costs to host railroads, but that minimal cost would be offset by the cost savings associated with FRA's proposed changes to § 236.1021.

The Secretary has broad statutory authority to "prescribe regulations and issue orders for every area of railroad safety" under 49 U.S.C. 20103 and regarding PTC technology under 49 U.S.C. 20157(g). This proposed rule will reduce the burden on railroads while not adversely affecting railroad safety. In this proposed rule, FRA proposes to reduce the regulatory and administrative burden on regulated entities by reducing the complexity and number of RFAs host railroads must submit regarding certain enhancements and necessary changes to their FRA-certified PTC systems under § 236.1021 and providing more clarity and precision regarding the reporting requirement under § 236.1029(h), using a form.

# 3. A Description of and, Where Feasible, an Estimate of the Number of Small Entities to Which the Proposed Rule Would Apply

The Regulatory Flexibility Act of 1980 requires a review of proposed and final rules to assess their impact on small entities, unless the Secretary certifies that the rule would not have a significant economic impact on a substantial number of small entities. "Small entity" is defined in 5 U.S.C. 601 as a small business concern that is independently owned and operated and is not dominant in its field of operation. The U.S. Small Business Administration (SBA) has authority to regulate issues related to small businesses, and stipulates in its size standards that a "small entity" in the railroad industry is a for-profit "line-haul railroad" that has fewer than 1,500 employees, a "short line railroad" with fewer than 500 employees, or a "commuter rail system" with annual receipts of less than seven million dollars. *See* "Size Eligibility Provisions and Standards," 13 CFR part 121, subpart A.

The proposed rule would directly apply to all host railroads subject to 49 U.S.C. 20157, including, in relevant part, 5 Class II or III, short line, or terminal railroads, and 23 intercity passenger railroads or commuter railroads, some of which may be small entities.

4. A Description of the Projected Reporting, Recordkeeping, and Other Compliance Requirements of the Rule, Including an Estimate of the Class of Small Entities That Will be Subject to the Requirements and the Type of Professional Skill Necessary for Preparation of the Report or Record

The proposed RFA process would allow railroads to make enhancements and necessary changes to their PTC systems more efficiently. FRA understands that only 5 of the current PTC-mandated host railroads are small entities; however, because this proposed rule would reduce the regulatory costs and hourly burdens on these railroads, the proposed changes would result in a positive impact on those railroads.

FRA is also proposing to amend the reporting requirement under § 236.1029(h) by increasing the frequency from annual to biannual, clarifying the types of statistics and

encompass positive performance-related information.<sup>50</sup> Though this expanded reporting requirement would double the number of submissions and increase the hourly burden, the proposed changes are necessary to enable FRA to oversee the performance and reliability of railroads' PTC systems effectively. FRA estimates that the additional costs associated with the increased reporting requirement will be more than offset by the proposed changes to § 236.1021. Furthermore, FRA assumes that as host railroads become more familiar with the reporting requirements proposed under § 236.1029(h), the hourly burden per submission will be reduced from 12 hours to 10 hours.

FRA expects that the proposed reporting requirement tasks will be completed by one Professional and Administrative employee per host railroad and require a basic understanding of Microsoft Excel.

To calculate the individual costs for small entities, FRA divided the total cost for each year by the number of estimated host railroads. FRA assumes that the hourly burden to submit an RFA is independent of an entity's size because the RFA depends upon the PTC system and not the individual railroad making the submission. The total cost for all host railroads in year one would be \$43,385. FRA estimates that the individual cost to each host railroad would be approximately \$1,240. The estimated ten-year cost per host railroad that FRA considers a small entity would be approximately \$7,997, discounted at 7 percent, or \$9,247, discounted at 3 percent. Though the proposed rule would impose costs on those host railroads that are small entities, it would also result in cost savings.

To calculate the individual cost savings for small entities, FRA divided the total

practicable." See § 236.1029(b)(4) (emphasis added).

<sup>&</sup>lt;sup>50</sup> In addition, with respect to tenant railroads, FRA's proposed changes to § 236.1029(h) are generally consistent with the existing regulatory requirement specifying that a tenant railroad must report a PTC system failure or cut out to "a designated railroad officer of the *host railroad* as soon as safe and

cost savings for each year by the number of estimated host railroads. The total annual cost savings in the first year would be \$737,538. FRA estimates that the individual cost savings for each host railroad would be \$21,073. The estimated ten-year cost savings per host railroad that FRA considers a small entity would be \$149,476, discounted at 7 percent, or \$173,984, discounted at 3 percent. FRA requests comments on the burden that small entities would face under this proposed rule.

# 5. Identification, to the Extent Practicable, of All Relevant Federal Rules That May Duplicate, Overlap, or Conflict with the Proposed Rule

FRA is not aware of any relevant Federal rule that duplicates, overlaps with, or conflicts with the proposed rule. As described in this NPRM, the existing and proposed 49 CFR 236.1029(h) (proposed Biannual Report of PTC System Performance, Form FRA F 6180.152) constitutes a permanent reporting requirement, whereas the Statutory Notification of PTC System Failures (Form FRA F 6180.177, OMB Control No. 2130-0553) under 49 U.S.C. 20157(j)(4) is a temporary reporting requirement and expires on approximately December 31, 2021. FRA invites all interested parties to submit comments, data, and information demonstrating the potential economic impact on small entities that will result from the adoption of this proposed rule. FRA particularly encourages small entities potentially impacted by the proposed amendments to participate in the public comment process. FRA will consider all comments received during the public comment period for this NPRM when making a final determination of the rule's economic impact on small entities.

#### 6. A Description of Significant Alternatives to the Rule

FRA is proposing this rulemaking to alleviate burdens on industry and improve the process associated with changes and upgrades to FRA-certified PTC systems and the associated PTCSPs. FRA's proposed changes to § 236.1021 are expected to result in cost savings for both the host railroads and the government. Furthermore, FRA proposes to permit host railroads utilizing the same type of PTC system to submit joint RFAs to their

PTCDPs and PTCSPs, which will benefit both the industry and FRA. The main alternative to this rulemaking would be to maintain the status quo.

In the absence of this proposed rule, railroads would continue to submit information under § 236.1029(h) that may not be sufficient for FRA to oversee PTC systems' performance and reliability effectively. FRA notes the NPRM proposes to establish a new form<sup>51</sup> to report the required information under § 236.1029(h), which will help clarify and facilitate this reporting requirement for the industry. The alternative of not issuing the proposed rule would also forgo the more efficient process of allowing host railroads to submit joint RFAs to their PTCDPs and PTCSPs, and to implement certain changes to their PTC systems under the proposed streamlined process under § 236.1021(l) and (m), which would reduce the overall burden of FRA's PTC regulations.

### C. Paperwork Reduction Act

The information collection requirements in this proposed rule are being submitted for approval to OMB under the Paperwork Reduction Act of 1995, 44 U.S.C. 3501, *et seq*. Please note that any new or revised requirements, as proposed in this NPRM, are marked by asterisks (\*) in the table below. The sections that contain the proposed and current information collection requirements under OMB Control No. 2130-0553<sup>52</sup> and the estimated time to fulfill each requirement are as follows:

CFR Section/Subject	Respondent Universe	Total Annual Responses	Average Time per Response	Total Annual Burden Hours	Total Annual Dollar Cost Equivalent <sup>53</sup>
235.6(c) – Expedited application for approval of certain changes described in this section	42 railroads	10 expedited applications	5 hours	50 hours	\$3,850
<ul><li>Copy of expedited application to labor union</li></ul>	42 railroads	10 copies	30 minutes	5 hours	\$385

<sup>&</sup>lt;sup>51</sup> Biannual Report of PTC System Performance (Form FRA F 6180.152).

<sup>52</sup> See also 84 FR 72121 (Dec. 30, 2019) (60-day ICR notice); 85 FR 15022 (Mar. 16, 2020) (30-day ICR notice). On June 5, 2020, OMB approved the revised ICR, entitled "PTC and Other Signal Systems" under OMB Control No. 2130-0553, for a period of three years, expiring on June 30, 2023.

<sup>&</sup>lt;sup>53</sup> The dollar equivalent cost is derived from the 2019 STB Full Year Wage A&B data series using the appropriate employee group hourly wage rate that includes a 75-percent overhead charge. For Executives, Officials, and Staff Assistants, this cost amounts to \$120 per hour. For Professional/Administrative staff, this cost amounts to \$77 per hour.

- Railroad letter rescinding its request for expedited application of certain signal system changes	42 railroads	1 letter	6 hours	6 hours	\$462
Revised application for certain signal system changes	42 railroads	1 application	5 hours	5 hours	\$385
<ul> <li>Copy of railroad revised application to labor union</li> </ul>	42 railroads	1 copy	30 minutes	.5 hours	\$39
236.1 – Railroad maintained signal plans at all interlockings, automatic signal locations, and controlled points, and updates to ensure accuracy	700 railroads	25 plan changes	15 minutes	6.3 hours	\$485
236.15 – Designation of automatic block, traffic control, train stop, train control, cab signal, and PTC territory in timetable instructions	700 railroads	10 timetable instructions	30 minutes	5 hours	\$385
236.18 – Software management control plan – New railroads	2 railroads	2 plans	160 hours	320 hours	\$24,640
236.23(e) – The names, indications, and aspects of roadway and cab signals shall be defined in the carrier's Operating Rule Book or Special Instructions.  Modifications shall be filed with FRA within 30 days after such modifications become effective	700 railroads	2 modifications	1 hour	2 hours	\$154
236.587(d) – Certification and departure test results	742 railroads	4,562,500 train departures	5 seconds	6,337 hours	\$487,949
236.905(a) – Railroad Safety Program Plan (RSPP) – New railroads	2 railroads	2 RSPPs	40 hours	80 hours	\$6,160
236.913(a) – Filing and approval of a joint Product Safety Plan (PSP)	742 railroads	1 joint plan	2,000 hours	2,000 hours	\$240,000
(c)(1) – Informational filing/petition for special approval	742 railroads	0.5 filings/approval petitions	50 hours	25 hours	\$1,925
(c)(2) – Response to FRA's request for further data after informational filing	742 railroads	0.25 data calls/documents	5 hours	1 hour	\$77
(d)(1)(ii) – Response to FRA's request for further information within 15 days after receipt of the Notice of Product Development (NOPD)	742 railroads	0.25 data calls/documents	1 hour	0.25 hours	\$19
(d)(1)(iii) – Technical consultation by FRA with the railroad on the design and planned development of the product	742 railroads	0.25 technical consultations	5 hours	1.3 hour	\$100

(4)(1)(-) D-:11	742	0.25	11	0.25 1	¢10
(d)(1)(v) – Railroad	742 railroads	0.25 petitions	1 hour	0.25 hours	\$19
petition to FRA for final approval of NOPD					
* *	740 1 1	1 ,	50.1	50.1	<b>#2.050</b>
(d)(2)(ii) – Response to	742 railroads	1 request	50 hours	50 hours	\$3,850
FRA's request for					
additional information					
associated with a petition					
for approval of PSP or PSP					
amendment					
(e) – Comments to FRA on	742 railroads	0.5	10 hours	5 hours	\$385
railroad informational		comments/letters			
filing or special approval					
petition					
(h)(3)(i) – Railroad	742 railroads	2 amendments	20 hours	40 hours	\$3,080
amendment to PSP	7 .2 14111 0445	<b>-</b> will will will will will will will wil	20 110 6115		Ψ2,000
(j) – Railroad field	742 railroads	1 field test	100 hours	100 hours	\$7,700
testing/information filing	742 141110443	document	100 nours	100 nours	\$7,700
document		document			
236.917(a) – Railroad	13 railroads	13 PSP safety	160 hours	2,080 hours	\$160.160
retention of records: results	with PSP	-	100 nours	2,000 Hours	\$160,160
	with PSP	results			
of tests and inspections					
specified in the PSP					
(b) – Railroad report that	13 railroads	1 report	40 hours	40 hours	\$3,080
frequency of safety-					
relevant hazards exceeds					
threshold set forth in PSP					
(b)(3) – Railroad final	13 railroads	1 report	10 hours	10 hours	\$770
report to FRA on the					
results of the analysis and					
countermeasures taken to					
reduce the frequency of					
safety-relevant hazards					
236.919(a) – Railroad	13 railroads	1 OMM update	40 hours	40 hours	\$3,080
Operations and		o construction			42,000
Maintenance Manual					
(OMM)					
(b) – Plans for proper	13 railroads	1 plan update	40 hours	40 hours	\$3,080
maintenance, repair,	15 Tuniouds	i pian apaate	10 nours	10 Hours	Ψ5,000
inspection, and testing of					
safety-critical products					
(c) – Documented	13 railroads	1 revision	40 hours	40 hours	\$3,080
· /	13 failloads	1 Tevision	40 nours	40 nours	\$3,080
hardware, software, and					
firmware revisions in					
OMM	12 11		40.1	40.1	<b>#2.000</b>
236.921 and 923(a) –	13 railroads	1 program	40 hours	40 hours	\$3,080
Railroad Training and					
Qualification Program					
236.923(b) – Training	13 railroads	350 records	10	58 hours	\$4,466
records retained in a			minutes		
designated location and					
available to FRA upon					
		1			
request			<u>                                       </u>		
request Form FRA F 6180.165 –	35 railroads	11.7	23.22	271 hours	\$20,867
Form FRA F 6180.165 –	35 railroads		23.22 hours	271 hours	\$20,867
	35 railroads	11.7 reports/forms		271 hours	\$20,867

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<sup>&</sup>lt;sup>54</sup> A railroad's final Quarterly PTC Progress Report (Form FRA F 6180.165) will be due on January 31, 2021, assuming the railroad fully implements an FRA-certified and interoperable PTC system by the statutory deadline of December 31, 2020.

F FD A F (100 166	25	11.7	40.12	4601	\$27.027
Form FRA F 6180.166 –	35 railroads	11.7	40.12 hours	468 hours	\$36,036
Annual PTC Progress Report (49 U.S.C.		reports/forms	nours		
20157(c)(1) and 49 CFR					
$236.1009(a)(5))^{55}$					
Form FRA F 6180.177 –	38 railroads	144	1 hour	144 hours	\$11,088
	38 failloads		1 Hour	144 Hours	\$11,000
Statutory Notification of		reports/forms			
PTC System Failures					
(Under 49 U.S.C.					
$\frac{20157(j)(4))^{56}}{22(1001(h) - 4 - 2 + 1 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 +$	38 railroads	11	40 1,	40 1	¢4.000
236.1001(b) – A railroad's additional or more	38 railroads	1 rule or instruction	40 hours	40 hours	\$4,800
		instruction			
stringent rules than					
prescribed under 49 CFR					
part 236, subpart I	701 1 1 1 ·	4 1 6 1	40 CED 226	1000() 100(10	21
236.1005(b)(4)(i)–(ii) – A	The burden is	accounted for unde	r 49 CFR 236.	1009(a) and 236.10	21.
railroad's submission of					
estimated traffic					
projections for the next 5					
years, to support a request,					
in a PTCIP or an RFA, not					
to implement a PTC					
system based on reductions					
in rail traffic	7.01	1 1	40.1	40.1	#2.00 <i>(</i>
(b)(4)(iii) – A railroad's	7 Class I	1 exception	40 hours	40 hours	\$3,080
request for a de minimis	railroads	request			
exception, in a PTCIP or					
an RFA, based on a					
minimal quantity of PIH					
materials traffic	TDI 1 1 1	. 1.0 1	40 CED 226	1000() 100(10	2.1
(b)(5) – A railroad's	The burden is	accounted for unde	r 49 CFR 236.	1009(a) and 236.10	21.
request to remove a line					
from its PTCIP based on					
the sale of the line to					
another railroad and any					
related request for FRA					
review from the acquiring					
railroad	20 1 1	1.45	101	2601	фод <b>до</b>
(g)(1)(i) - A railroad's	38 railroads	45 rerouting	8 hours	360 hours	\$27,720
request to temporarily		extension			
reroute trains not equipped		requests			
with a PTC system onto					
PTC-equipped tracks and					
vice versa during certain					
emergencies	20 :1 1	45	2 1	00.1	Φ.C. 0.2.4
(g)(1)(ii) – A railroad's	38 railroads	45 written or	2 hours	90 hours	\$6,930
written or telephonic notice		telephonic			
of the conditions		notices			
necessitating emergency					
rerouting and other					
required information under					
required information under 236.1005(i)	20 '1 1	720	0.1	5.7(0.1	m 4 4 2
required information under 236.1005(i) (g)(2) – A railroad's	38 railroads	720 requests	8 hours	5,760 hours	\$443,520
required information under 236.1005(i)	38 railroads	720 requests	8 hours	5,760 hours	\$443,520

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<sup>&</sup>lt;sup>55</sup> A railroad's final Annual PTC Progress Report (Form FRA F 6180.166) will be due on March 31, 2021, assuming it fully implements an FRA-certified and interoperable PTC system by the statutory deadline of December 31, 2020.

<sup>&</sup>lt;sup>56</sup> The temporary Statutory Notification of PTC System Failures (Form FRA F 6180.177) expires on approximately December 31, 2021 per 49 U.S.C. 20157(j).

maintenance not exceeding 30 days					
(h)(1) – A response to any request for additional information from FRA, prior to commencing rerouting due to planned maintenance	38 railroads	10 requests	2 hours	20 hours	\$1,540
(h)(2) – A railroad's request to temporarily reroute trains due to planned maintenance exceeding 30 days	38 railroads	160 requests	8 hours	1,280 hours	\$98,560
236.1006(b)(4)(iii)(B) – A progress report due by December 31, 2020, and by December 31, 2022, from any Class II or III railroad utilizing a temporary exception under this section	262 railroads	5 reports	16 hours	80 hours	\$6,160
(b)(5)(vii) – A railroad's request to utilize different yard movement procedures, as part of a freight yard movements exception	The burden is a	accounted for unde	er 49 CFR 236.1	1015 and 236.102	1.
236.1007(b)(1) – For any high-speed service over 90 miles per hour (mph), a railroad's PTC Safety Plan (PTCSP) must additionally establish that the PTC system was designed and will be operated to meet the fail-safe operation criteria in Appendix C	The burden is a	accounted for under	er 49 CFR 236.	1015 and 236.102	1.
(c) – An HSR-125 document accompanying a host railroad's PTCSP, for operations over 125 mph	38 railroads	1 HSR-125 document	3,200 hours	3,200 hours	\$384,000
(c)(1) – A railroad's request for approval to use foreign service data, prior to submission of a PTCSP	38 railroads	0.3 requests	8,000 hours	2,667 hours	\$205,359
(d) – A railroad's request in a PTCSP that FRA excuse compliance with one or more of this section's requirements	38 railroads	1 request	1,000 hours	1,000 hours	\$120,000
236.1009(a)(2) – A PTCIP if a railroad becomes a host railroad of a main line requiring the implementation of a PTC system, including the information under 49 U.S.C. 20157(a)(2) and 49 CFR 236.1011	264 railroads	1 PTCIP	535 hours	535 hours	\$64,200

(a)(3) – Any new PTCIPs jointly filed by a host	264 railroads	1 joint PTCIP	267 hours	267 hours	\$32,040
railroad and a tenant railroad					
(b)(1) – A host railroad's submission, individually or jointly with a tenant railroad or PTC system supplier, of an unmodified Type Approval	264 railroads	1 document	8 hours	8 hours	\$616
(b)(2) – A host railroad's submission of a PTCDP with the information required under 49 CFR 236.1013, requesting a Type Approval for a PTC system that either does not have a Type Approval or has a Type Approval that requires one or more variances	264 railroads	1 PTCDP	2,000 hours	2,000 hours	\$154,000
(d) – A host railroad's	The burdens ar	e accounted for un	der 49 CFR 23	6.1015.	
submission of a PTCSP  (e)(3) – Any request for full or partial confidentiality of a PTCIP, Notice of Product Intent (NPI), PTCDP, or PTCSP	38 railroads	10 confidentiality requests	8 hours	80 hours	\$6,160
(h) – Any responses or documents submitted in connection with FRA's use of its authority to monitor, test, and inspect processes, procedures, facilities, documents, records, design and testing materials, artifacts, training materials and programs, and any other information used in the design, development, manufacture, test, implementation, and operation of the PTC system, including interviews with railroad personnel	38 railroads	36 interviews and documents	4 hours	144 hours	\$11,088
(j)(2)(iii) – Any additional information provided in response to FRA's consultations or inquiries about a PTCDP or PTCSP	38 railroads	1 set of additional information	400 hours	400 hours	\$30,800
236.1011(a)–(b) – PTCIP content requirements	The burdens ar	re accounted for un	der 49 CFR 23	6.1009(a) and (e	e) and 236.1021.
(e) – Any public comment on PTCIPs, NPIs, PTCDPs, and PTCSPs	38 railroads	2 public comments	8 hours	16 hours	\$1,232
236.1013, PTCDP and NPI content requirements	The burdens ar 236.1021.	e accounted for un	der 49 CFR 23	6.1009(b), (c), a	nd (e) and

236.1015 – Any new host railroad's PTCSP meeting all content requirements under 49 CFR 236.1015	264 railroads	1 PTCSP	8,000 hours	8,000 hours	\$616,000
(g) – A PTCSP for a PTC system replacing an existing certified PTC system	38 railroads	0.3 PTCSPs	3,200 hours	1,067 hours	\$82,159
(h) – A quantitative risk assessment, if FRA requires one to be submitted	38 railroads	0.3 assessments	800 hours	267 hours	\$20,559
236.1017(a) – An independent third-party assessment, if FRA requires one to be conducted and submitted	38 railroads	0.3 assessments	1,600 hours	533 hours	\$63,960
(b) – A railroad's written request to confirm whether a specific entity qualifies as an independent third party	38 railroads	0.3 written requests	8 hours	3 hours	\$231
Further information provided to FRA upon request	38 railroads	0.3 sets of additional information	20 hours	7 hours	\$539
(d) – A request not to provide certain documents otherwise required under Appendix F for an independent, third-party assessment	38 railroads	0.3 requests	20 hours	7 hours	\$539
(e) – A request for FRA to accept information certified by a foreign regulatory entity for purposes of 49 CFR 236.1017 and/or 236.1009(i)	38 railroads	0.3 requests	32 hours	11 hours	\$847
236.1019(b) – A request for a passenger terminal main line track exception (MTEA)	38 railroads	1 MTEA	160 hours	160 hours	\$12,320
(c)(1) – A request for a limited operations exception (based on restricted speed, temporal separation, or a risk mitigation plan)	38 railroads	1 request and/or plan	160 hours	160 hours	\$12,320
(c)(2) – A request for a limited operations exception for a non-Class I, freight railroad's track	10 railroads	1 request	160 hours	160 hours	\$12,320
(c)(3) – A request for a limited operations exception for a Class I railroad's track	7 railroads	1 request	160 hours	160 hours	\$12,320
(d) – A railroad's collision hazard analysis in support of an MTEA, if FRA requires one to be conducted and submitted	38 railroads	0.3 collision hazard analysis	50 hours	17 hours	\$1,309

(e) – Any temporal separation procedures utilized under the 49 CFR 236.1019(c)(1)(ii) exception	The burdens are	The burdens are accounted for under 49 CFR 236.1019(c)(1).					
236.1021(a)–(d) – Any RFA to a railroad's PTCIP or PTCDP	38 railroads	10 RFAs	160 hours	1,600 hours	\$123,200		
(e) – Any public comments, if an RFA includes a request for approval of a discontinuance or material modification of a signal or train control system and a Federal Register notice is published	5 interested parties	10 RFA public comments	16 hours	160 hours	\$12,320		
(I) – Any jointly filed RFA to a PTCDP or PTCSP (*Note: This is a new proposed paragraph to authorize host railroads to file joint RFAs in certain cases, but such RFAs are already required under FRA's existing regulations*)		e accounted for und	er 49 CFR 23		nd (m).		
(m) – Any RFA to a railroad's PTCSP (*Note: Revised requirement. This is a new proposed paragraph with a simplified process governing RFAs to PTCSPs*)	38 railroads	15 RFAs	80 hours	1,200 hours	\$92,400		
236.1023(a) – A railroad's PTC Product Vendor List, which must be continually updated	38 railroads	2 updated lists	8 hours	16 hours	\$1,232		
(b)(1) – All contractual arrangements between a railroad and its hardware and software suppliers or vendors for certain immediate notifications	The burdens are	e accounted for und	er 49 CFR 23	6.1015 and 236.	1021.		
(b)(2)–(3) – A vendor's or supplier's notification, upon receipt of a report of any safety-critical failure of its product, to any railroads using the product	10 vendors or suppliers	10 notifications	8 hours	80 hours	\$6,160		
(c)(1)–(2) – A railroad's process and procedures for taking action upon being notified of a safety-critical failure or a safety-critical upgrade, patch, revision, repair, replacement, or modification, and a railroad's configuration/revision	The burdens are	e accounted for und	er 49 CFR 23	6.1015 and 236.	1021.		

control measures, set forth in its PTCSP						
(d) – A railroad's submission, to the applicable vendor or supplier, of the railroad's procedures for action upon notification of a safety-critical failure, upgrade, patch, or revision to the PTC system and actions to be taken until it is adjusted, repaired, or replaced	38 railroads	2.5 notifications	16 hours	40 hours	\$3,080	
(e) – A railroad's database of all safety-relevant hazards, which must be maintained after the PTC system is placed in service	38 railroads	38 database updates	16 hours	608 hours	\$46,816	
(e)(1) – A railroad's notification to the vendor or supplier and FRA if the frequency of a safety-relevant hazard exceeds the threshold set forth in the PTCDP and PTCSP, and about the failure, malfunction, or defective condition that decreased or eliminated the safety functionality	38 railroads	8 notifications	8 hours	64 hours	\$4,928	
(e)(2) – Continual updates about any and all subsequent failures	38 railroads	1 update	8 hours	8 hours	\$616	
(f) – Any notifications that must be submitted to FRA under 49 CFR 236.1023	The burdens are accounted for under 49 CFR 236.1023(e), (g), and (h).					
(g) – A railroad's and vendor's or supplier's report, upon FRA request, about an investigation of an accident or service difficulty due to a manufacturing or design defect and their corrective actions	38 railroads	0.5 reports	40 hours	20 hours	\$1,540	
(h) – A PTC system vendor's or supplier's reports of any safety-relevant failures, defective conditions, previously unidentified hazards, recommended mitigation actions, and any affected railroads	10 vendors or suppliers	20 reports	8 hours	160 hours	\$12,320	
(k) – A report of a failure of a PTC system resulting in a more favorable aspect than intended or other condition hazardous to the movement of a train,	The burdens are CFR part 233.	e accounted for und	er 49 CFR 23	6.1023(e), (g), and	(h) and 49	

including the reports required under part 233							
236.1029(b)(4) – A report	150 host and	1,000 reports	30	500 hours	\$38,500		
of an en route failure, other	tenant	1,000 160013	minutes	500 nours	Ψ30,300		
failure, or cut out to a	railroads						
designated railroad officer							
of the host railroad							
(h) – Form FRA F	38 railroads	76 reports	12 hours	912 hours	\$70,224		
6180.152 – Biannual							
Report of PTC System							
Performance (*Revised requirement and new							
form*)							
236.1033 –	The hurdens ar	e accounted for und	ler 49 CFR 23	6 1009 and 236 10	115		
Communications and	The burdens are accounted for under 49 CFR 236.1009 and 236.1015.						
security requirements							
236.1035(a)–(b) – A	38 railroads	10 requests	40 hours	400 hours	\$30,800		
railroad's request for	20141110443	10104000	10 110 6115	.001100115	420,000		
authorization to field test							
an uncertified PTC system							
and any responses to							
FRA's testing conditions							
236.1037(a)(1)–(2) –	The burdens ar	e accounted for und	ler 49 CFR 23	6.1009 and 236.10	15.		
Records retention							
(a)(3)-(4) - Records	The burdens ar	e accounted for und	ler 49 CFR 23	6.1039 and 236.10	43(b).		
retention							
(b) – Results of inspections	38 railroads	800 records	1 hour	800 hours	\$61,600		
and tests specified in a							
railroad's PTCSP and							
PTCDP							
(c) – A contractor's	20	1,600 records	10	267 hours	\$20,559		
records related to the	contractors		minutes				
testing, maintenance, or							
operation of a PTC system							
maintained at a designated							
L ottico							
office (d)(3) A railroad's final	28 railroads	2 final reports	160 hours	1 280 hours	\$08 560		
(d)(3) – A railroad's final	38 railroads	8 final reports	160 hours	1,280 hours	\$98,560		
(d)(3) – A railroad's final report of the results of the	38 railroads	8 final reports	160 hours	1,280 hours	\$98,560		
(d)(3) – A railroad's final report of the results of the analysis and	38 railroads	8 final reports	160 hours	1,280 hours	\$98,560		
(d)(3) – A railroad's final report of the results of the analysis and countermeasures taken to	38 railroads	8 final reports	160 hours	1,280 hours	\$98,560		
(d)(3) – A railroad's final report of the results of the analysis and countermeasures taken to reduce the frequency of	38 railroads	8 final reports	160 hours	1,280 hours	\$98,560		
(d)(3) – A railroad's final report of the results of the analysis and countermeasures taken to	38 railroads	8 final reports	160 hours	1,280 hours	\$98,560		
(d)(3) – A railroad's final report of the results of the analysis and countermeasures taken to reduce the frequency of safety-related hazards	38 railroads	8 final reports	160 hours	1,280 hours	\$98,560		
(d)(3) – A railroad's final report of the results of the analysis and countermeasures taken to reduce the frequency of safety-related hazards below the threshold set	38 railroads  38 railroads	8 final reports  2 OMM updates	160 hours	1,280 hours	\$98,560		
(d)(3) – A railroad's final report of the results of the analysis and countermeasures taken to reduce the frequency of safety-related hazards below the threshold set forth in the PTCSP 236.1039(a)–(c), (e) – A railroad's PTC Operations							
(d)(3) – A railroad's final report of the results of the analysis and countermeasures taken to reduce the frequency of safety-related hazards below the threshold set forth in the PTCSP 236.1039(a)–(c), (e) – A railroad's PTC Operations and Maintenance Manual							
(d)(3) – A railroad's final report of the results of the analysis and countermeasures taken to reduce the frequency of safety-related hazards below the threshold set forth in the PTCSP 236.1039(a)–(c), (e) – A railroad's PTC Operations and Maintenance Manual (OMM), which must be							
(d)(3) – A railroad's final report of the results of the analysis and countermeasures taken to reduce the frequency of safety-related hazards below the threshold set forth in the PTCSP  236.1039(a)–(c), (e) – A railroad's PTC Operations and Maintenance Manual (OMM), which must be maintained and available to							
(d)(3) – A railroad's final report of the results of the analysis and countermeasures taken to reduce the frequency of safety-related hazards below the threshold set forth in the PTCSP 236.1039(a)–(c), (e) – A railroad's PTC Operations and Maintenance Manual (OMM), which must be maintained and available to FRA upon request	38 railroads	2 OMM updates	10 hours	20 hours	\$1,540		
(d)(3) – A railroad's final report of the results of the analysis and countermeasures taken to reduce the frequency of safety-related hazards below the threshold set forth in the PTCSP 236.1039(a)–(c), (e) – A railroad's PTC Operations and Maintenance Manual (OMM), which must be maintained and available to FRA upon request (d) – A railroad's		2 OMM updates  1 identified new					
(d)(3) – A railroad's final report of the results of the analysis and countermeasures taken to reduce the frequency of safety-related hazards below the threshold set forth in the PTCSP 236.1039(a)–(c), (e) – A railroad's PTC Operations and Maintenance Manual (OMM), which must be maintained and available to FRA upon request (d) – A railroad's identification of a PTC	38 railroads	2 OMM updates	10 hours	20 hours	\$1,540		
(d)(3) – A railroad's final report of the results of the analysis and countermeasures taken to reduce the frequency of safety-related hazards below the threshold set forth in the PTCSP 236.1039(a)–(c), (e) – A railroad's PTC Operations and Maintenance Manual (OMM), which must be maintained and available to FRA upon request (d) – A railroad's identification of a PTC system's safety-critical	38 railroads	2 OMM updates  1 identified new	10 hours	20 hours	\$1,540		
(d)(3) – A railroad's final report of the results of the analysis and countermeasures taken to reduce the frequency of safety-related hazards below the threshold set forth in the PTCSP 236.1039(a)–(c), (e) – A railroad's PTC Operations and Maintenance Manual (OMM), which must be maintained and available to FRA upon request (d) – A railroad's identification of a PTC system's safety-critical components, including	38 railroads	2 OMM updates  1 identified new	10 hours	20 hours	\$1,540		
(d)(3) – A railroad's final report of the results of the analysis and countermeasures taken to reduce the frequency of safety-related hazards below the threshold set forth in the PTCSP 236.1039(a)–(c), (e) – A railroad's PTC Operations and Maintenance Manual (OMM), which must be maintained and available to FRA upon request (d) – A railroad's identification of a PTC system's safety-critical components, including spare equipment	38 railroads 38 railroads	2 OMM updates  1 identified new component	10 hours	20 hours	\$1,540 \$77		
(d)(3) – A railroad's final report of the results of the analysis and countermeasures taken to reduce the frequency of safety-related hazards below the threshold set forth in the PTCSP 236.1039(a)–(c), (e) – A railroad's PTC Operations and Maintenance Manual (OMM), which must be maintained and available to FRA upon request (d) – A railroad's identification of a PTC system's safety-critical components, including spare equipment 236.1041(a)–(b) and	38 railroads	2 OMM updates  1 identified new	10 hours	20 hours	\$1,540		
(d)(3) – A railroad's final report of the results of the analysis and countermeasures taken to reduce the frequency of safety-related hazards below the threshold set forth in the PTCSP  236.1039(a)–(c), (e) – A railroad's PTC Operations and Maintenance Manual (OMM), which must be maintained and available to FRA upon request (d) – A railroad's identification of a PTC system's safety-critical components, including spare equipment  236.1041(a)–(b) and  236.1043(a) – A railroad's	38 railroads 38 railroads	2 OMM updates  1 identified new component	10 hours	20 hours	\$1,540 \$77		
(d)(3) – A railroad's final report of the results of the analysis and countermeasures taken to reduce the frequency of safety-related hazards below the threshold set forth in the PTCSP  236.1039(a)–(c), (e) – A railroad's PTC Operations and Maintenance Manual (OMM), which must be maintained and available to FRA upon request (d) – A railroad's identification of a PTC system's safety-critical components, including spare equipment  236.1041(a)–(b) and  236.1043(a) – A railroad's PTC Training and	38 railroads 38 railroads	2 OMM updates  1 identified new component	10 hours	20 hours	\$1,540 \$77		
(d)(3) – A railroad's final report of the results of the analysis and countermeasures taken to reduce the frequency of safety-related hazards below the threshold set forth in the PTCSP 236.1039(a)–(c), (e) – A railroad's PTC Operations and Maintenance Manual (OMM), which must be maintained and available to FRA upon request (d) – A railroad's identification of a PTC system's safety-critical components, including spare equipment 236.1041(a)–(b) and 236.1043(a) – A railroad's	38 railroads 38 railroads	2 OMM updates  1 identified new component	10 hours	20 hours	\$1,540 \$77		

236.1043(b) – Training	150 host and	150 PTC	1 hour	150 hours	\$11,550
records retained in a	tenant	training record			
designated location and	railroads	databases			
available to FRA upon					
request					
Total	N/A	4,567,923	N/A	49,116 hours	\$4,107,626
		responses			

All estimates include the time for reviewing instructions; searching existing data sources; gathering or maintaining the needed data; and reviewing the information. Pursuant to 44 U.S.C. 3506(c)(2)(B), FRA solicits comments concerning: whether these information collection requirements are necessary for the proper performance of the functions of FRA, including whether the information has practical utility; the accuracy of FRA's estimates of the burden of the information collection requirements; the quality, utility, and clarity of the information to be collected; and whether the burden of collection of information on those who are to respond, including through the use of automated collection techniques or other forms of information technology, may be minimized.

Organizations and individuals desiring to submit comments on the collection of information requirements should direct them to Ms. Hodan Wells, Information Clearance Officer, at 202-493-0440 or via e-mail at *Hodan.Wells@dot.gov*.

#### D. Federalism Implications

Executive Order 13132, "Federalism," requires FRA to develop an accountable process to ensure "meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications." *See* 64 FR 43255 (Aug. 10, 1999). "Policies that have federalism implications" are defined in the Executive Order to include regulations having "substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government." *Id.* Under Executive Order 13132, the agency may not issue a regulation with federalism implications that imposes substantial direct compliance costs and that is not required by statute, unless the Federal government provides the funds necessary to pay the direct

compliance costs incurred by State and local governments or the agency consults with State and local government officials early in the process of developing the regulation. Where a regulation has federalism implications and preempts State law, the agency seeks to consult with State and local officials in the process of developing the regulation.

FRA has analyzed this proposed rule under the principles and criteria contained in Executive Order 13132. FRA has determined this proposed rule would not have a substantial direct effect on the States or their political subdivisions; on the relationship between the Federal government and the States or their political subdivisions; or on the distribution of power and responsibilities among the various levels of government. In addition, FRA has determined this proposed rule does not impose substantial direct compliance costs on State and local governments. Therefore, the consultation and funding requirements of Executive Order 13132 do not apply.

This proposed rule could have preemptive effect by the operation of law under a provision of the former Federal Railroad Safety Act of 1970, repealed and recodified at 49 U.S.C. 20106. Section 20106 provides that States may not adopt or continue in effect any law, regulation, or order related to railroad safety or security that covers the subject matter of a regulation prescribed or order issued by the Secretary of Transportation (with respect to railroad safety matters) or the Secretary of Homeland Security (with respect to railroad security matters), except when the State law, regulation, or order qualifies under the "essentially local safety or security hazard" exception to section 20106.

FRA has analyzed this proposed rule in accordance with the principles and criteria contained in Executive Order 13132. As explained above, FRA has determined that this proposed rule has no federalism implications, other than the possible preemption of State laws under Federal railroad safety statutes, specifically 49 U.S.C. 20106. Accordingly, FRA has determined that preparation of a federalism summary impact statement for this proposed rule is not required.

#### E. International Trade Impact Assessment

The Trade Agreements Act of 1979 prohibits Federal agencies from engaging in any standards or related activities that create unnecessary obstacles to the foreign commerce of the United States. Legitimate domestic objectives, such as safety, are not considered unnecessary obstacles. The statute also requires consideration of international standards and where appropriate, that they be the basis for U.S. standards. This proposed rule is purely domestic in nature and is not expected to affect trade opportunities for U.S. firms doing business overseas or for foreign firms doing business in the United States.

## F. Environmental Impact

FRA has evaluated this proposed rule consistent with the National Environmental Policy Act (NEPA; 42 U.S.C. 4321, et seq.), the Council of Environmental Quality's NEPA implementing regulations at 40 CFR parts 1500–1508, and FRA's NEPA implementing regulations at 23 CFR part 771, and determined that it is categorically excluded from environmental review and therefore does not require the preparation of an environmental assessment (EA) or environmental impact statement (EIS). Categorical exclusions (CEs) are actions identified in an agency's NEPA implementing regulations that do not normally have a significant impact on the environment and therefore do not require either an EA or EIS. See 40 CFR 1508.4. Specifically, FRA has determined that this proposed rule is categorically excluded from detailed environmental review pursuant to 23 CFR 771.116(c)(15), "Promulgation of rules, the issuance of policy statements, the waiver or modification of existing regulatory requirements, or discretionary approvals that do not result in significantly increased emissions of air or water pollutants or noise."

This proposed rule does not directly or indirectly impact any environmental resources and would not result in significantly increased emissions of air or water pollutants or noise. Instead, the proposed rule is likely to result in safety benefits. In analyzing the applicability of a CE, FRA must also consider whether unusual

circumstances are present that would warrant a more detailed environmental review. *See* 23 CFR 771.116(b). FRA has concluded that no such unusual circumstances exist with respect to this proposed rule and the proposal meets the requirements for categorical exclusion under 23 CFR 771.116(c)(15).

Pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations, FRA has determined this undertaking has no potential to affect historic properties. *See* 16 U.S.C. 470. FRA has also determined that this rulemaking does not approve a project resulting in a use of a resource protected by Section 4(f). *See* Department of Transportation Act of 1966, as amended (Pub. L. No. 89-670, 80 Stat. 931); 49 U.S.C. 303.

## G. Executive Order 12898 (Environmental Justice)

Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," and DOT Order 5610.2B, dated November 18, 2020, require DOT agencies to consider environmental justice principles by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations. The DOT Order instructs DOT agencies to address compliance with Executive Order 12898, Executive Order 13771, and requirements within the DOT Order in rulemaking activities, as appropriate. FRA has evaluated this proposed rule and has determined it would not cause disproportionately high and adverse human health and environmental effects on minority populations or low-income populations.

#### H. Unfunded Mandates Reform Act of 1995

Under section 201 of the Unfunded Mandates Reform Act of 1995 (Pub. L. No. 104-4, 2 U.S.C. 1531), each Federal agency "shall, unless otherwise prohibited by law, assess the effects of Federal regulatory actions on State, local, and tribal governments,

and the private sector (other than to the extent that such regulations incorporate requirements specifically set forth in law)." Section 202 of the Act (2 U.S.C. 1532) further requires that "before promulgating any general notice of proposed rulemaking that is likely to result in promulgation of any rule that includes any Federal mandate that may result in the expenditure by State, local, and tribal governments, in the aggregate, or by the private sector, of \$100,000,000 or more (adjusted annually for inflation) in any 1 year, and before promulgating any final rule for which a general notice of proposed rulemaking was published, the agency shall prepare a written statement" detailing the effect on State, local, and tribal governments and the private sector. This proposed rule would not result in the expenditure, in the aggregate, of \$100,000,000 or more (as adjusted annually for inflation) in any one year, and thus preparation of such a statement is not required.

## I. Energy Impact

Executive Order 13211, "Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use," requires Federal agencies to prepare a Statement of Energy Effects for any "significant energy action." 66 FR 28355 (May 22, 2001). FRA has evaluated this proposed rule under Executive Order 13211 and determined that this proposed rule is not a "significant energy action" within the meaning of Executive Order 13211.

Executive Order 13783, "Promoting Energy Independence and Economic Growth," requires Federal agencies to review regulations to determine whether they potentially burden the development or use of domestically produced energy resources, with particular attention to oil, natural gas, coal, and nuclear energy resources. 82 FR 16093 (Mar. 31, 2017). FRA has evaluated this proposed rule under Executive Order 13783 and determined that this rule would not burden the development or use of domestically produced energy resources.

### J. Privacy Act Statement

In accordance with 5 U.S.C. 553(c), DOT solicits comments from the public to better inform its rulemaking process. DOT posts these comments, without edit, to www.regulations.gov, as described in the system of records notice, DOT/ALL-14 FDMS, accessible through https://www.transportation.gov/privacy. To facilitate comment tracking and response, DOT encourages commenters to provide their name, or the name of their organization; however, submission of names is completely optional. Whether or not commenters identify themselves, all timely comments will be fully considered. If you wish to provide comments containing proprietary or confidential information, please contact the agency for alternate submission instructions.

## List of Subjects in 49 CFR Part 236

Penalties, Positive train control, Railroad safety, Reporting and recordkeeping requirements.

In consideration of the foregoing, FRA proposes to amend 49 CFR part 236, as follows:

PART 236 – RULES, STANDARDS, AND INSTRUCTIONS GOVERNING THE INSTALLATION, INSPECTION, MAINTENANCE, AND REPAIR OF SIGNAL AND TRAIN CONTROL SYSTEMS, DEVICES, AND APPLIANCES –

1. The authority citation for part 236 continues to read as follows:

**Authority:** 49 U.S.C. 20102–20103, 20107, 20133, 20141, 20157, 20301–20303, 20306, 20501–20505, 20701–20703, 21301–21302, 21304; 28 U.S.C. 2461, note; and 49 CFR 1.89.

Amend § 236.1003 in paragraph (b) by adding the definitions of "Cut out", "Initialization failure", and "Malfunction" in alphabetical order to read as follows:
 § 236.1003 Definitions.

\* \* \* \* \*

Cut out means any disabling of a PTC system, subsystem, or component en route, including when the PTC system cuts out on its own or a person cuts out the system, unless the cut out was necessary to exit PTC-governed territory and enter non-PTC territory.

\* \* \* \* \*

Initialization failure means any instance when a PTC system fails to activate on a locomotive or train, unless the PTC system successfully activates during a subsequent attempt in the same location or before entering PTC-governed territory. For the types of PTC systems that do not initialize by design, a failed departure test is considered an initialization failure for purposes of the reporting requirement under § 236.1029(h), unless the PTC system successfully passes the departure test during a subsequent attempt in the same location or before entering PTC-governed territory.

\* \* \* \* \*

*Malfunction* means any instance when a PTC system, subsystem, or component fails to perform the functions mandated under 49 U.S.C. 20157(i)(5), this subpart, or the applicable host railroad's PTCSP.

\* \* \* \* \*

- 3. Amend § 236.1021 by:
  - a. Revising paragraphs (a), (c), (d) introductory text, and (d)(4);
  - b. Removing paragraph (d)(7); and
  - c. Adding paragraphs (l) and (m).

The revisions and additions read as follows:

#### § 236.1021 Discontinuances, material modifications, and amendments.

(a) No changes, as defined by this section, to a PTCIP or PTCDP may be made unless:

- (1) The railroad files a request for amendment (RFA) to the applicable PTCIP or PTCDP with the Associate Administrator; and
  - (2) The Associate Administrator approves the RFA.

\* \* \* \* \*

- (c) In lieu of a separate filing under part 235 of this chapter, a railroad may request approval of a discontinuance or material modification of a signal or train control system by filing an RFA to its PTCIP or PTCDP with the Associate Administrator.
- (d) FRA will not approve an RFA to a PTCIP or PTCDP unless the request includes:

\* \* \* \* \*

(4) The changes to the PTCIP or PTCDP, as applicable;

\* \* \* \* \*

- (I) Any RFA to a PTCDP or PTCSP pursuant to this section may be submitted jointly with other host railroads utilizing the same type of PTC system. However, only host railroads with the same PTC System Certification classification under § 236.1015(e) may jointly file an RFA to their PTCSPs. Any joint RFA to multiple host railroads' PTCSPs must include the information required under paragraph (m) of this section. The joint RFA must also include the written confirmation and statement specified under paragraphs (m)(2)(iii) and (iv) of this section from each host railroad jointly filing the RFA.
- (m) No changes, as specified under paragraph (h)(3) or (4) of this section, may be made to an FRA-certified PTC system or an FRA-approved PTCSP unless the host railroad first complies with the following process:
- (1) The host railroad revises its PTCSP to account for each proposed change to its PTC system and summarizes such changes in a chronological table of revisions at the beginning of its PTCSP;

- (2) The host railroad electronically submits the following information in an RFA to the Director of FRA's Office of Railroad Systems, Technology, and Automation:
- (i) A summary of the proposed changes to any safety-critical elements of a PTC system, including a summary of how the changes to the PTC system would affect its safety-critical functionality, how any new hazards have been addressed and mitigated, whether each change is a planned change that was previously included in all required analysis under § 236.1015 or an unplanned change, and the reason for the proposed changes, including whether the changes are necessary to address or resolve an emergency or urgent issue;
  - (ii) Any associated software release notes;
- (iii) A confirmation that the host railroad has notified any applicable tenant railroads of the proposed changes, any associated effect on the tenant railroads' operations, and any actions the tenant railroads must take in accordance with the configuration control measures set forth in the host railroad's PTCSP;
- (iv) A statement from the host railroad's Chief Engineer and Chief Operating

  Officer, or executive officers of similar qualifications, verifying that the modified PTC

  system would meet all technical requirements under this subpart, provide an equivalent or

  greater level of safety than the existing PTC system, and not adversely impact

  interoperability with any tenant railroads; and
  - (v) Any other information that FRA requests; and
- (3) A host railroad shall not make any changes, as specified under paragraph (h)(3) or (4) of this section, to its PTC system until the Director of FRA's Office of Railroad Systems, Technology, and Automation approves the RFA.
- (i) FRA will approve, approve with conditions, or deny the RFA within 45 days of the date on which the RFA was filed under paragraph (m)(2) of this section.

- (ii) FRA reserves the right to notify a railroad that changes may proceed prior to the 45-day mark, including in an emergency or under other circumstances necessitating a railroad's immediate implementation of the proposed changes to its PTC system.
- (iii) FRA may require a railroad to modify its RFA or its PTC system to the extent necessary to ensure safety or compliance with the requirements of this part.
- (iv) Following any FRA denial of an RFA, each applicable railroad is prohibited from making the proposed changes to its PTC system until the railroad both sufficiently addresses FRA's questions, comments, and concerns and obtains FRA's approval. Consistent with paragraph (l) of this section, any host railroads utilizing the same type of PTC system, including the same certification classification under § 236.1015(e), may jointly submit information to address FRA's questions, comments, and concerns following any denial of an RFA under this section.
- 4. Amend § 236.1029 by revising paragraph (h) to read as follows:§ 236.1029 PTC system use and failures.

\* \* \* \* \*

- (h) Biannual Report of PTC System Performance. (1) Each host railroad subject to 49 U.S.C. 20157 or this subpart shall electronically submit a Biannual Report of PTC System Performance on Form FRA F 6180.152, containing the following information for the applicable reporting period, separated by the host railroad, each applicable tenant railroad, and each PTC-governed track segment (e.g., territory, subdivision, district, main line, branch, or corridor), consistent with the railroad's PTC Implementation Plan:
- (i) The total number of PTC system initialization failures, and subtotals identifying the number of initialization failures where the source or cause was the onboard subsystem, wayside subsystem, communications subsystem, back office subsystem, or a non-PTC component;

- (ii) The total number of PTC system cut outs, and subtotals identifying the number of cut outs where the source or cause was the onboard subsystem, wayside subsystem, communications subsystem, back office subsystem, or a non-PTC component;
- (iii) The total number of PTC system malfunctions, and subtotals identifying the number of malfunctions where the source or cause was the onboard subsystem, wayside subsystem, communications subsystem, back office subsystem, or a non-PTC component;
- (iv) The number of intended enforcements by the PTC system and any other instances in which the PTC system prevented an accident or incident;
  - (v) The number of scheduled attempts at initialization of the PTC system;
  - (vi) The number of trains governed by the PTC system; and
  - (vii) The number of train miles governed by the PTC system.
- (2) A host railroad's Biannual Report of PTC System Performance (Form FRA F 6180.152) shall also include a summary of any actions the host railroad and its tenant railroads are continually taking to improve the performance and reliability of the PTC system.
- (3) Each host railroad shall electronically submit a Biannual Report of PTC System Performance (Form FRA F 6180.152) to FRA by the following due dates: July 31 (covering the period from January 1 to June 30), and January 31 (covering the period from July 1 to December 31 of the prior calendar year).
- (4) Each tenant railroad that operates on a host railroad's PTC-governed main line(s), unless the tenant railroad is currently subject to an exception under § 236.1006(b)(4) or (5), shall submit the information required under paragraphs (h)(1) and (2) of this section to each applicable host railroad by July 15 (for the report covering the period from January 1 to June 30) and by January 15 (for the report covering the period from July 1 to December 31 of the prior calendar year).

Issued in Washington, D.C.

## Quintin C. Kendall,

Deputy Administrator.

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